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VOLUME XXI A.

GURDASPUR DISTRICT,

WITH MAPS.

1914.

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Physical Aspects.

Name and derivation.

1. The district takes its name from the head-quarters town which was only a village until it became the administrative centre of the district. The name is said to be derived from Mahant Guriaji who bought the village and called it after himself. The family came from a village, also named Gurdaspur, in the Pathankot Tahsil, and it still owns the estate.

Boundaries and general configuration.

2. Situated in the north-east of the Lahore Division, the Gurdaspur District has a total area of 1,826 square miles, of which 1,290 or 71 per cent. are cultivated; it contains 2,363 estates, or the largest number in the province, with the single exception of the Sialkot District; it stands 23rd in area, 8th in population, and 2nd in the amount of land revenue paid among the districts of the province. On the north it is bounded by the territories of Jammu and Chamba, on the south by the Amritsar District, on the east by the Chakki river, which divides it from Kangra, and the Beas, beyond which are the Hoshiarpur District and the Kapurthala State, and on the west by the districts of Amritsar and Sialkot.

Of the four tahsils which comprise the district the two southern, Batala and Gurdaspur, are situated in the Bari Doab between the Beas and Ravi rivers, and present the ordinary features of the submontane portions of the Punjab plains. Pathankot, which is to the north of Gurdaspur, lies mostly between the Chakki stream (an affluent of the Beas) on the east and the Ravi on the west, but includes the Chak Andhar, a small tract beyond the Ravi and between that river and its tributary the Ujh, which is copiously irrigated by a network of petty canals. The Chak Andhar and the rest of the lower portion of Pathankot is in a modified degree a *terai* country, with luxuriant vegetation and a damp malarious climate, while the upper portion is a wedge running into the lower Himalaya, an arid, stony, undulating region for the most part, but with fairly fertile valleys here and there, and a moderate growth of pine forest on the higher ridges. In this tahsil, too, are included the hill station of Dalhousie and military cantonments of Balun and Bakloh, which are detached patches in the midst of Chamba territory. The fourth tahsil is Shakargarh, which is situated in the Rechna Doab, to the west of the Ujh and Ravi. This tahsil contains country which differs

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widely from the rest of the district, its northern portion, which lies below the low hills in Jammu territory, being a dry, treeless, upland tract, much cut up by ravines; while below this tract, to the east and south is a fertile, highly cultivated country, with water near the surface, the southern portion of the tahsil, which is known locally as the Darp, being unsurpassed in natural fertility by any part of the district. But even the richer tracts of Shakargarh contain but few groves and gardens, though the Paintla, or country between the uplands and the Ujh, is characterized by an abundant natural growth of *shisham*, which is a pleasing feature in the landscape of this portion of the tahsil.

Scenery.

3. The scenery of much of the district is more picturesque than is usual in the Punjab. The Batala and Gurdaspur Tahsils indeed present no special feature, except the wooded lines of the Bari Doab Canal, but the rolling downs and ravines of the Bharrari in Shakargarh, the almost tropical vegetation of the Pathankot submontane, and the variety of the low hills of the same tahsil are an agreeable change from the ordinary monotony of a plains district. Writing of Pathankot, Colonel Harcourt says :—

"The scenery of the whole of this submontane tract, stretching from just below Dalhousie to the foot of the Pir Panjal range, is extremely beautiful. Beyond the extensive and undulating plain dotted with hamlets, groves of trees and flowing streams, rises, in majestic grandeur, the vast height of the snow-clad Himalaya. Probably no district in the Punjab would offer such facilities to the landscape painter."

River system and water-supply.

4. The Beas on the eastern border and the Ravi flowing through the centre of the district are the main streams, and these receive the drainage of numerous affluents.

The Beas.

The Beas strikes the border of this district at Mirthal flowing north-west. At this point it receives the Chawas Cho and 3 miles lower, near Bianpur, the Chakki. After flowing west-south-west for about 6 miles below Mirthal, the stream curves sharply southwards. Its western bank is high and rugged throughout its passage past this district, but the present course of the river-bed is at a distance from the high bank, ranging from 1 to nearly 6 miles. The cold-weather stream has an average depth of about 6 feet and is even fordable in places; in the rains its average depth is about 20 feet. The river-bed in the upper part of its course is composed of stones and sand, but becomes more mixed with mould lower down. Many islands, some of them of considerable size, are formed in the river-bed. There are no bridges on this part of the river. The ferries are all under the charge of the Hoshiarpur authorities. The most important are those of Bhet Ghat and Naushahra at which the river is crossed by the roads from Batala and Gurdaspur to Hoshiarpur. Inun-

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The Beas.

dation from the Beas is considerable and the whole tract between the river and the high bank is damp and unhealthy. This is especially the case in the Gurdaspur Tahsil, where the huge Kahnuwan marsh, alluded to below, runs almost the whole length from north to south. The river has approached very near to the marsh in the portion north of the Gurdaspur-Naushahra road and a few years ago it was apprehended that the stream might desert its present bed and flow through the marsh, rejoining its old course lower down. If the main stream continues on this side and silts up in the manner common to Punjab rivers, this is a not improbable contingency, and if it were to happen, great damage would be caused to the villages on the eastern border of the marsh.

The Ravi.

The Ravi enters the tahsil at Chaundh on the Chamba border, and flowing south-west forms the boundary between British and Kashmir territory for 23 miles as far as Baheri Buzurg. Thence it used to flow south for 10 miles and west for 10 miles, until it left the Pathankot Tahsil at Lashian. During its course below Baheri Buzurg, however, it threw off three branches which joined the parent stream lower down before it left the tahsil. These were the Singharwan, which runs past Narot, the Masto,* which passes Kathlaur, and the Bhattiya. It seems possible that some of these may have originally been inundation canals, but they have been for years branches of the main stream and form the sources from which minor branches and cuts are taken off. They are again noticed below. For years a large volume of water had been passing down the Masto, and at last in about 1859 the whole Ravi deserted its former bed and adopted that channel. The sudden rush caused an alteration in the course of the stream lower down which set in against the east bank. Eventually in 1870 the water cut across into a small *nala* close to Chak Ram Sahai, and the river now runs about 2 miles to the east of its former course which is still occupied by the Ujh. The original course of the Ravi† used to form the boundary of the Dinanagar District, and this explains the apparently anomalous fact that several villages along its course have been split up into separate estates, as the trans-Ravi portion of these was formerly in Sialkot. Up to a point about three miles below Madhopur the Ravi runs between high stony banks in a boulder bed. The high bank on the east continues for about 10 miles further, but from that point the bed becomes sandy like that of an ordinary river in the plains. After it leaves the hills its banks are cultivated. The

*NOTE.—The Masto, unlike the other two branches, has a pebbly bed.

†NOTE.—The water in the Ravi is colder in summer than that of any other Punjab river. The temperature at Madhopur seldom reaches 76° F.

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The Ravi.

depth of the water varies considerably. During the rainy season it is in parts 20 feet deep. From October to March it is fordable almost everywhere, as the whole of the water of the Ravi proper is taken off for the Bari Doab Canal, except when the canal is closed for repairs or during the winter rainstorms. The bed in the hills is formed of pebbles which gradually merge into sand and mould. Numerous islands are formed. Since 1870 there have been no important alterations in the course of the Ravi, and it is not until it enters the Gurdaspur Tahsil that much damage is done to its banks. The old encamping-ground by the famous Trimmu ferry has now almost all fallen into the river, but the apprehensions expressed in 1890 that the Ravi would adopt the Kiran as its bed by cutting through Bahlpur have fortunately proved groundless. Lower down the town of Dera Nanak in the Batala Tahsil has been more than once threatened, and in 1870 the stream carried away the Tahli Sahib shrine and the sacred *shisham* tree under which the Sikh Guru was said to have once taken shelter. It was found necessary to replace the embankment then put up by another erected in 1906 at considerable cost, and the consequent diversion of the set of the current to the other bank has caused much loss to villages in the Shakargarh Tahsil: the Kartarpur shrine, where Baba Nanak died, is now seriously threatened. There are no bridges on the Ravi in this district, but numerous ferries exist every 4 or 5 miles along its course through the plains.

The Chakki.

5. *The Chakki* divides this district from Kangra as far as Dhangu. It rises in the Dhaula Dhar on the southern slopes of the Dhain Kund spurs of the Himalaya and flows south-west in a broad boulder bed about half a mile wide. It is a most impetuous torrent, and has been the cause of the loss of numerous lives owing to the sudden freshets which come down it without a note of warning. It has been bridged on the Kangra road at Harial. Below Dhangu it used formerly to divide into two branches. One, known as the Khal, which carried most of the water, ran south-west past Gulpur and joined the Ravi below Trimmu in Gurdaspur, and the other, taking a southerly course, reached the Beas near Mirthal. The Gulpur branch cut right across the main line of the Hasli and Bari Doab Canal, and at last after many attempts to train the whole of the water at Gulpur into the Mirthal branch, the Canal Officers adopted a heroic measure, and made a cutting about 200 feet deep and 100 yards wide through the end of the Dhangu ridge, and by the aid of this and an embankment sent the water coursing down a practically new channel to Mirthal. This was in 1862, and since then the torrent has, by a large expenditure, been kept to this bed. Considerable

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damage was caused by diluvion to the villages below Dhangu, and those on the old course of the Khal lost a good deal of valuable irrigation; but this was inevitable in the interests of the canal.

The Chakki.

The Chakki runs very low in the hot weather, but still almost always contains a certain amount of water which is taken out and utilised in private canals by the Kandi circle villages.

The Ujh.

6. *The Ujh* rises in the low hills beyond Jasrota in Jammu, and its main stream after entering this district practically forms the boundary between the Pathankot and Shakargarh Tahsils. Two branches of the main stream, however, striking off in Jammu on the eastern bank, are known as the Ujh Bachera and the Ujh Minor and pass through the Chak Andhar of Pathankot, rejoining the Ujh proper at Sakol and Bambial, respectively. The Ujh is a perennial stream and brings down a large volume of water in the rains. The bed is for the most part sandy, and the deposit is of a deep red colour, owing to the red ferruginous clays which form a conspicuous feature of the low hills. So strongly marked is this peculiarity that it is possible to tell at a glance as soon as the zone of influence of the Ujh is entered. The soils here are clayey and inferior in fertility to those affected by the Ravi silt.

Streams of the Chak Andhar.

7. Closely connected with the Ravi and Ujh is the Jalalia or Bajah which has a perennial flow, and rising just inside the Jammu border is largely used for irrigation purposes by the Chak Andhar villages. It is fordable all the year round and flows into the Ujh at Jaitpur below Bambial. The Masto, Bhattiya and Singharwan have already been mentioned: the first-named enters the Pathankot Tahsil at Maira Kalan, and after receiving the waters of the Ravi rejoins the parent stream at Bharial Harchandan. The Bhattiya comes in at Kiri Khurd and divides into two branches, known as the old and the new, which after running separately for some distance again re-unite and fall into the old Ravi at Gidri. The Singharwan, entering the tahsil at Naroli, falls into the Ujh at Hamza.

The Bein.

8. *The Bein* is a large sandy torrent which rises in Jammu to the north of Shakargarh and running through the centre of the tahsil falls into the Ravi. It is formed by the combined waters of the Tarnah and Bhabban and is said to have become much more rapid and destructive than formerly, owing to the fact that the whole of the Tarnah stream now runs into it, whereas part branching to the eastward used to join the Ujh. The point of junction with the Ravi also is apt to shift: before 1864 it was at Madho, in 1890 at Ada, and it is now a mile or so further westward at Pairewal. In 1890 an embankment was built at Saroch

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to prevent it breaking out over the old high bank of the Ujh and taking an entirely new course through the lowlands to the Ravi. This it actually did in 1893 and caused widespread damage : the embankment was then strengthened and the stream carefully watched, and it has since followed mainly its old course. It is joined by the Hodla at Khanna and by the Dehr at Saroch. The bed is in places over a mile wide and is composed of deep sand through which in the cold weather only a shallow narrow stream of water flows. But owing to its rapid slope it is liable in the rains to sudden and violent floods which cause frequent loss of life. Like most of these torrents it is almost always detrimental in its action as it takes away land and leaves only sand.

Other streams of Shakargarh.

9. The Hodla, the Karir and the Basantar (in its upper reaches called the Bhabbi) are similar torrents, rising to the north of Shakargarh and taking a southerly and westerly course through the tahsil.

Drainage lines.

10. Besides the rivers and the streams which have been described, there are various drainage lines of the actual Doab between the Ravi and the Beas which may be noticed.

The Kiran.

The Kiran.—The chief of these is the Kiran which rises in the Bahrampur swamps into which the drainage of the country between Bahrampur and the Bari Doab Canal runs. It is said to derive its name from a Raja Kiran who cleared it out in mythical times ; but another legend ascribes the formation of the stream to the passage of a snake. It runs between well-defined banks in a very tortuous channel, due according to the myth to the wrigglings of the snake. The total length of its course in this district is 36 miles. Rising as it does in a series of swamps and fed at intervals by the drainage of other marshes, the water is not of good quality and impregnates the lands through which it passes with a saline deposit. The two original branches of this stream join at Radhan, and it then flows roughly parallel with the Ravi until it passes out into the Amritsar District, where it is known as the Sakki. Kalanaur in Gurdaspur Tahsil possesses a small private cut, from which some 320 acres are irrigated yearly, and a District Board canal, from which about 1,250 acres are irrigated, takes off at Rahimabad in Batala. Water-mills, which check the flow of the stream, used to be set up at different places, but these have now been prohibited.

The Kasur nala.

The Kasur nala.—This rises about 6 miles to the south of Gurdaspur, and, running through this district and that of Amritsar past Batala and Tarn Taran, enters the Lahore District and empties itself into the old bed of the Beas near Kasur. It is also known in Batala as the old Basti. In this tahsil it sometimes does considerable damage after heavy rain.

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The Patti. *The Patti nala.*—This rises a few miles still further to the south, and running past the town of Kadian and Rangar Nangal ends, like the Kasur *nala*, in the old bed of the Beas in the district of Lahore near the town of Patti. It is also known as the Lei or Sukheri.

The Udiara. *The Udiara nala.*—A fourth line of drainage, known as the Udiara *nala*, rises on the confines of this district to the north of Majitha (in Amritsar), flows across the Amritsar District, and enters the lowland of the Ravi about 43 miles south of Lahore.

Minor Doabs. By these *nalas* the Bari Doab is, as it were, cut up into five minor Doabs, and it was this configuration which, as is shown hereafter, determined the course adopted for the Bari Doab Canal and its branches. A curious feature of these minor Doabs is noted by Lieutenant Dyas, who conducted the original surveys for the Bari Doab Canal. Sand is almost invariably to be met with crowning the highest part of each ridge between the drainage lines, and as in the main Doab the highest land lies close along the Beas or " old Beas," so generally in the minor Doabs between the lines of drainage the highest land is to be found, not in the centre but nearer to the drainage on the Beas side of the ridge. The crowning lines of sand, on the other hand, have a gradual slope on the side towards the Beas, but end abruptly on the side looking towards the Ravi.

The Kahnuwan Chambh. 11. A marked feature of the Bari Doab is the existence of numerous *chambhs* or swamps. The most noted of these is the Kahnuwan Chambh, which runs almost the whole length of the tahsil from Pindori Bainsan on the north to Bheri on the south, close under the old high bank or *dhaia*, as it is locally termed. This swamp is one of the most curious natural features of the tract. To the north it is narrow and shallow, but broadens and deepens until it attains a breadth of about 2½ miles and a depth in places of 6 feet or 7 feet between the Gurdaspur-Naushahra road and Kahnuwan. From the latter village on it has been considerably reduced and drained by an escape dug before annexation and improved under the supervision of the Irrigation Department after 1860, but there is still a line of swampy ground which runs along under the *dhaia* to the southern boundary of the tahsil. The *chambh* is referred to by Mr. Davies, Settlement Officer, Bari Doab, in paragraph 5 of his report on Tahsil Adinanagar, submitted in 1854. In his opinion it was due to inundations from the Beas, and it was probably in consequence of his remarks that the Pakhowal embankment was constructed. This embankment, built in 1856, used to run between Lahri and Jagatpur, a distance of some 5 miles between the river and the swamp,

CHAP. I-A. Physical Aspects. The Kahnuwan Chambh.

and in the rains it formed an excellent road above the marsh. But it appears to have had no effect whatever in decreasing the area of the swamp and by checking inundation from the river prevented the deposit of fertilising silt. The embankment was therefore allowed to fall into disrepair: it was breached at numerous points; and a few years ago almost the whole length of it was swept away. The people of course attribute the swamp to percolation from the Bari Doab Canal, and there is undoubtedly great loss of water from the canal along its whole length, where it runs parallel to and at a short distance from the old high bank: at the same time there must always have been much drainage from the Bangar down into the low lands and, with this unable to escape into the Beas, the formation of a swamp was inevitable. The main drain starting below Lahri runs through the centre of the swamp and carries a great deal of water: the number of lateral drains has recently been increased, and these have done much local good.

Other Chambhs.

12. Parmanand, Dhamrai, Narad and Badi-ul-Zaman are smaller swamps in the west of and close to the Bari Doab Canal and a chain of marshes stretches across the Gurdaspur Tahsil between the canal and the Kiran. The most important of these are the Keshopur, Magar Mudian, and Paniar *chambhs* near Gurdaspur, and the Bhopar, Bucha Nangal, Naranwali and Dehr marshes on either side of the road from Gurdaspur to Dera Nanak.

Geology.

13. Mr. C. E. Blaker of the Irrigation Department has kindly furnished me with the subjoined brief description of the geology of the hilly tract:—

"No detailed investigation into the geology of the district has been made and the following notes are necessarily incomplete.

The main features are as follows:—

In the elevated areas of the Dhaula Dhar range, comprising the Chamba forest between Chamba and Dalhousie, are exposed the granitic Himalayan core in juxtaposition with gneiss and schist of the 'Punjal' system.

Descending towards the foothills from Dalhousie to Dunera, rocks of Sirmur and Siwalik age are met with, having their boundary roughly on a line drawn N. W. and S. E. through Bakloh. A narrow inlier of the former is seen running in the same direction through Basohli, surrounded by Siwalik formations. The latter pass through the alternate beds of sandstone and clay of Lower Siwalik age, which are exposed in the Dhaula Dhar ridge as seen at Dhar, then through the sand rocks of the middle Siwaliks to the upper Siwalik conglomerates, which form the low hills seen near Pathankot and at Shahpur Kandi; these then merge into the fine sedimentary alluvium of the plains.

These conglomerates are also found as an outlier in the Phangota neighbourhood, to the north of the Dalla Dhar, where they overlie the Mid-Siwalik sand rock in a sinclinal trough.

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Geology.

The economic geology of the district has no feature of outstanding importance.

In the elevated regions inferior limestone and slate are not uncommon and the 'ban' oak tract contains shale and slate. Quartz and schist are less common.

The Ravi river and Naddi beds are covered with boulders and shingle which extends for some miles below the emergence of the channels into the plains. They are chiefly of hard quartzite originally brought down by the rivers from the denuded Primary strata of the elevated areas. The boulders are used locally for setts and walling. Boulders of inferior limestone are found in some quantity in the Chakki Naddi and are burned for lime.

Building stone is, in the elevated areas, obtained chiefly from gneiss and, in the sub-montane areas, from the Sirmur and Lower Siwalik sandstone. Deposits of kanker modules in the district are scarce and are generally of inferior quality."

The peculiar Bharrari tract of Shakargarh is not, as might be supposed from a glance at the map, a portion of the direct slope from the Himalaya to the plains, but has a more or less distinct watershed of its own which follows the northern boundary: along this rounded stones are frequent, and in one or two places, as at Masrur, soft sandstone crops out: the ridge, though much denuded, is perhaps a continuation of the Siwaliks.

The remainder of the district appears to be the ordinary alluvial of the plains.

Botany.

14. The following trees are common all over the district:—

Acacia arabica	Kikar.
Acacia modesta	Phulai.
Albizzia lebbek	Siris.
Dalbergia sissoo	Shisham.
Eugenia jambolana..	Jaman.
Ficus carica	Phagwara.
Ficus glomerata	Rambal or gular.
Ficus indica	Bor.
Ficus religiosa	Pipal.
Mangifera indica	Am.
Morus indica	Tut.
Zizyphus jujuba	Ber.

The following are also found, but are not so common, except in Pathankot, where they are more abundant:—

Acacia catechu	Khair.
Ægle marmelos	Bil.
Bauhinia malabarica	Kachnar.
Butea frondosa	Dhak or palah.
Cassia fistula	Amaltas or rayar.

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Botany.

Cedrela toona	Tun.
Cordia myxa	Lasura.
Cratæva religiosa	Barna.
Ficus infectoria	Palak.
Melia azedarach	Bakain.
Pongamia glabra	Charr.
Terminalia belerica	Bahera.

The Chinese tallow (*Excecaria sebifera*) grows, though not frequently, in Gurdaspur and Batala, but does not appear to occur in Pathankot. The *nim* (*Melia indica*) is also found but sparsely, and the *mohwa* (*Engelhardtia Colebrookiana*) is sometimes seen in Gurdaspur. The *sufeda* (*Populus alba*, the white poplar) also occurs occasionally. Date-palms are common in Pathankot and in the moist areas, mostly near marshes in the Gurdaspur Tahsil. The Pathankot Tahsil, owing to its more tropical character, possesses a number of trees not found elsewhere in the district. In addition to those named in the foregoing list, the following are quite common :—

Bombax malabaricum	Simal.
Cascaria tormentosa	Chilla.
Celtis australis	Kar.
Flaconsitia ramontchi	Kokoa.
Putranjiva roxburghii	Putagan.

The bamboo (*Dendrocalamus strictus*) also grows luxuriantly all over this tahsil. Other trees which occur in Pathankot, but more rarely, are these (the vernacular names, where known, are given) :—

Acacia farnesiana.	
Albizzia stipulata.	
Ailanthus excelsa.	
Bassia latifolia	Maua.
Bischoffia javanica.	
Diospyros montana.	
Ehretia acuminata	Puna.
Ehretia laevis	Chamror.
Grewia oppositifolia	Dhaman.
Holoptelea integrifolia.	
Litsæa sebifera.	
Mallotus philippinensis	Kamela or raini.
Olea cuspidata	Kaho.
Premna latifolia	Gun.
Phyllanthus emblica	Amla.
Wenlandia excerta	Pansara.
Xylosma longifolium	Charindi.
Terminalia chebula	Harar.
Terminalia arjuna	Arjan.
Sapindus detergens	Retha.
Antidesma diandrum	Imli.
Prosopis spicigera	Jhand.

Besides the mango (*am*) and mulberry (*tut*), the following fruit trees will grow almost anywhere where water and care are available :—

Citrus aurantium	Sangtara.
Citrus limetta	Mitha.
Citrus medica	Khatta.
Citrus acida	Nimbu.
Citrus decumana	Chakotra.
Prunus communis	Alucha.
Eriobotrya japonica	Loquat.
Prunus persica	Aru.
Psidium guava	Amrud.
Pyrus communis	Nashpati.
Punica granatum	Anar.
Musa paradisiaca	Kela.

Bor and mango trees are the chief feature of the stony ground round Madhopur and Shahpur, while *tun*, *jaman* and *shisham* trees are most noticeable in the canal plantations. Mulberry trees are common and grow to a considerable size, but are not satisfactory timber trees, as when they are cut they are generally found to be rotten inside : there is, however, a fair demand for timber for export to Amritsar and Sialkot for various manufactures. *Shisham* and *tun* are the most useful and valuable timber trees, while *jaman* and *simbal* are useful as they last well under water. *Phulai* and hill olive (*kaho*) have harder and heavier timber than any other trees in the district, but they are not much used for timber as they are not obtainable in large quantities and are very hard to work. *Siris* is used for oil-presses, but white ants attack it very readily. The black wood of *phulai* and *shisham* is practically safe from white ants. *Shisham* trees are usually not destroyed by goats ; mulberry, *siris*, *kikar*, *phulai* and *ber* have the misfortune to be popular in this respect : while *pipals* suffer from the depredations of camelmen.

The lower vegetation in the plains tahsils does not present any special feature.

Of weeds and grasses it is sufficient to mention the *bughat*, or wild leek, which is so noticeable among the spring crops, and the two thistles, *kandiari* and *leh*, which are especially troublesome in the moist lands bordering the *chambhs* and in the Beas and Ravi Bets. The *dhub* or *dhubra* grass everywhere marks the fertile soil, and the barren wastes in the Kiran valley and the slopes of the Beas high bank are thinly covered with the coarse and innutritious *dab*. *Kair* or *jhar* is found everywhere : bulrushes, reeds, thatching grass and *kaserla*, grow in the swamps, together with the *benku* grass which is

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poisonous to cattle and decreases the value of the grazing. *Dodh* and *mahna* are prevalent in the Darp of Shakargarh, and the latter is a valuable fodder resembling *senjhi*: it grows wild in moist fields all over the district. *Bhang* grows freely along the canal banks and *ak* everywhere. In Pathankot undergrowth is very luxuriant, the most prominent bushes being *bhang*, *mendu* or *sanatha*, *basati* and *garna*: cactus hedges surround most of the fields, and the plant grows wild in the low hills.

In the hill station of Dalhousie the most common and valuable species is *ban* oak (*Quercus incana*), and there is a constant demand for the wood. *Chil* (*Pinus longifolia*) is common, but the people do not use it as timber and its fuel fetches only a nominal price. Spruce (*Picea morinda*) and silver fir (*Abies pindrow*) are also common and the wood valuable. Horse-chestnuts are frequent and rhododendron (*Rhododendron arboreum*) covers the hill sides. *Ablan* (*Pieris ovalifolia*) grows in clumps, but the wood is valueless. On the northern side a little *deodar* is met with, but is not exploited. *Quercus pedunculata* (English oak) and Spanish chestnut (*Castania vulgaris*), both exotics, have been planted on Bakrota.

A list of the trees and shrubs found in the Shahpur Kandi forests is given in Section C of Chapter II.

Wild animals and game birds.

15. There are few notable wild animals in the district: *nilgai* are sometimes found in the jungles which lie between the Beas and the canal in the north of the Gurdaspur and the south-east of the Pathankot Tahsil; leopard are also met with in the same tract as well as in the hill circle of Pathankot and near Dalhousie; a few stray black buck may cross the Jammu border into the north of the Shakargarh Tahsil; wild pig are numerous in the Kahnuwan swamp; but speaking generally there is no big game in the district. Monkeys infest the canal banks on the northern reaches of the Bari Doab and do some damage to crops; and in Dalhousie the *langur* or grey ape is common. Game birds, chiefly water-fowl, are quite plentiful: with abnormally severe weather in the hills wild swan have been known to visit the district and some were shot here in 1911: these were the Mute swan: a Hooper swan, the only instance of this variety being found in India, was shot on the Beas many years ago by General Osborne: the *kunj* or *kulon* comes into the north of Shakargarh in the winter and sand-grouse are also to be found in the north-west of that tahsil and occasionally in sandy tracts in other parts of the district: quail are common in the swamps and in the ripened crops both in October and April: black and

CHAP. I-A. Physical Aspects. Wild animals and game birds.

grey partridge and a few *kalij* pheasants and jungle-fowl frequent the low hills. Geese come in fairly large numbers in November and February on their way from and to the hills, and duck of all kinds are very numerous on similar migrations in October and April: during the rest of the cold weather duck are not so frequently seen as might be expected and they are usually kept well on the move by the parties of sportsmen who visit the district during the winter.

The game bird *par excellence* of the district is the snipe, and this sporting little bird is always to be found during the cold weather months in the swamps: only the fan-tail and the jack-snipe are met with; the pintail does not come so far north.

Of the game birds described in Hume and Marshall's "Game Birds of India" the following are found in the district:—

The common sand-grouse ..	Pterocles exustus.
The common peafowl ..	Pavo cristatus.
The koklas	Pucrasia macrolopha.
The white-crested kalij ..	Euplocamus albocristatus.
The red jungle-fowl ..	Gallus ferrugineus.
The black partridge ..	Francolinus vulgaris.
The grey partridge ..	Ortygornis pondicerianus.
The common or grey quail ..	Coturnix communis.
The rock-bush quail ..	Perdicula argoondah.
The saras	Grus antigone.
The common crane ..	Grus communis.
The demoiselle crane ..	Anthropoides virgo.
The grey lag goose ..	Anser cinereus.
The white-fronted or laughing goose	Anser albifrons.
The barred-headed goose ..	Anser indicus.
The ruddy sheldrake or Brahminy duck	Casarca rutila.
The shoveller	Spatula clypeata.
The mallard	Anas boscas.
The gadwall	Chaulelasmus streperus.
The pintail	Dafila acuta.
The wigeon	Mareca penelope.
The common teal ..	Querquedula crecca.
The garganey teal ..	Querquedula circia.
The pochard or dun bird ..	Fuligula ferina.
The red-crested pochard ..	Fuligula rufina.
The white-eyed pochard ..	Fuligula nyroca.
The tufted pochard ..	Fuligula cristata.
The common or fan-tail snipe	Gallinago cœlestis.
The jack snipe	Gallinago gallinula.
The painted snipe ..	Rhynchæa capensis.

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Physical Aspects.
Climate.

16. The climate is more temperate than in the central Punjab, and the district benefits largely by its proximity to the hills, to which it owes not only much of its usually constant rainfall, but also the cool breezes which even in the hottest months frequently blow down from the upper ranges. Shakargarh and the areas unirrigated by the Bari Doab Canal in Batala are healthy, but Pathankot and the swampy and canal-irrigated areas in Gurdaspur are considerably less so. The over-irrigated Chak Andhar tract and the Kandi and Hill circles in Pathankot are the worst parts of a generally unhealthy tahsil: fever, spleen diseases, goitre and pneumonia are prevalent here, and the physique of the people is markedly inferior to that of the rest of the district. In the Hill circle the original Thakkar Rajput owners are undoubtedly dying out, but the main cause of this is more probably the constant inter-marriages than any special defect of climate. Malaria in bad years takes a heavy toll of the inhabitants of the whole district, and especially so in Pathankot and the swampy tracts of the Gurdaspur Tahsil.

No records of temperature have been kept in past years, but from December 1913 the Deputy Director of Agriculture has begun to maintain daily records on the Experimental Farm at Gurdaspur.

Rainfall.

17. The sub-montane character of the district is favourable for rainfall which usually is sufficient in amount and, what is more important, is well distributed.

The 20 years' average for different months by the tahsil rain-gauges is shewn below:—

Tahsil.	June to August (kharif harvest).	September to February (rabi harvest).	March to May (cane and cotton sowings).	Total.
Batala	16·37	7·56	2·72	26·65
Gurdaspur	22·72	10·78	3·18	36·68
Shakargarh	21·16	10·21	3·28	34·65
Pathankot	31·26	18·56	3·69	53·51

Details will be found in the various Assessment Reports.

The rainfall clearly diminishes as the distance from the hills increases. Seasonal fluctuations are not remarkable: in

common with the rest of the province the crops suffered from deficient and ill-distributed rainfall in 1896, 1899, 1907 and 1911, but these were the only really bad years which the di trict has experienced during the last twenty years.

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Canal-irrigated crops in the *kharif* are largely, though not entirely, independent of rain, but well-irrigation is only used to supplement rainfall, and with its wide *barani* areas the greater part of the district may suffer severely from drought ; actual famine is unknown, although the Bharrari of Shakargarh sometimes approaches perilously near it after two successive crop failures : but liberal suspensions of revenue are required over most of the district if the monsoon or cold weather rains are scanty or ill-timed.

Earthquakes and floods.

18. The earthquake of April 1905 is the only one remembered by the people : in Dalhousie many houses were badly shaken and the walls cracked, and one on the Upper Bakrota Mall was partially destroyed : in the plains the shock was not nearly so severe and no damage is recorded as having been done ; nevertheless, the oscillation of the ground was such that the people near Bhimpur witnessed the curious sight of the water in the Bari Doab Canal, washing up high on either bank in turn and then gradually subsiding to its natural level.

The only exceptional floods of which the memory is still retained are those of the years 1875 and 1876 when large tracts, especially in the Gurdaspur Tahsil, were swamped and waterlogged : there are still traces of the damage in the existence of the several drains which were then dug and in the abandoned lower portion of the Sirkian Distributary which the people prayed to have closed ; they have since repented in vain of their hasty action.

Section B.—History.

Akbar at Kalanaur.

19. The first event recorded of the district in historical times is the visit of the great canal constructor, Firoz Tuglak, to Kalanaur in 1353, and this was the most important town in the district during the period of the Delhi Emperors. Akbar was enthroned there on his succession in 1556 and a masonry platform, which still exists about a mile to the east of the town, is the actual spot upon which his installation took place : a fine garden constructed round it, together with an *hamam* and a *lukhe chappe* or maze, have long since disappeared, and the bricks of the ruined buildings were used as ballast for the Amritsar-Pathankot Railway line. Four large wells and numerous smaller ones, with a few fine old mango trees, are the only remains of Akbar's courts and palaces.

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History.

Jahangir at Kahnuwan and Pindori.

20. The prospects of sport in the extensive marsh to which Kahnuwan gives its name attracted the Emperor Jahangir who made frequent visits to this town: during one of these he first heard of the existence of the celebrated Bairagi, Fakir Bhagwanji, and sought to make his acquaintance. The Bairagi avoided the King by miraculously burrowing through the ground to Pindori, some 10 miles off to the north, and on the King following him up, he effected in a similar way his escape to Dhamtal across the Chakki in Kangra. In proof of the story, caves, or rather holes in the ground, are shown at Kahnuwan and Pindori. On a subsequent visit Jahangir found Narain, the disciple of Bhagwanji, at Pindori, but could get no answer from him, since the fakir was then undergoing a penance in consequence of which he was not allowed to speak. He, therefore, took him to Lahore, where seven cups of poison were, it is said, administered to Narain, a mere taste of which was sufficient to kill an elephant on the spot, but which caused him no hurt whatever. On Bhagwanji's arrival he explained matters to the Emperor, who was so amazed at the occurrence that he had a temple constructed at Pindori, in the shape of a Muhammadan domed tomb which still exists, and endowed the shrine with a grant of a *jagir* of Rs. 20,000. The deed is, it is said, still preserved at the daughter shrine of Dhamtal, and there is no doubt that the tomb and grant were due to the munificence of the Emperor.

Construction of the Shah Nahr.

21. In 1639 the celebrated Engineer Ali Mardan Khan, under the auspices of the Emperor Shah Jehan, began the construction of the Shah Nahr to carry the waters of the Ravi to the royal gardens of Shalimar near Lahore. Ala-ul-Mulk or Fazal Khan remodelled and completed the work and within this district at least the alignment has been closely followed, not only by the Sikhs in constructing the Hasli but by our own engineers in laying out the Bari Doab Canal.

The Sikh Gurus and the district—

(1) Baba Nanak and his sons.

22. In the decline and fall of the Mughal supremacy and the rise of the Sikh power the district saw its most stirring scenes. Several of the Sikh Gurus have been closely associated with the district. The holy Nanak, born in 1469 in the Lahore District, married in 1485 Sulakhni, daughter of one Mula, a Khatri of Pakhoki in the Batala Tahsil, and from his two sons by this marriage, Sri Chand and Lakhmi Das, are sprung, by spiritual descent, the two sects of Udasis and Bedis.

At Galri in the Gurdaspur Tahsil on the road to Trimmu ferry there is a grove of old shishams, one of which is said to have grown from Sri Chand's *datan* or tooth brush, which he

had stuck into the ground, and a fair is held here on the Baisakhi. The original tree has of course ceased to exist, but a young sapling is shown as having come up from its roots. Nanak seems to have lived a great deal at Pakhoki, his wife's village, and eventually died in 1538 at Kartarpur on the opposite bank of the Ravi, some four miles off, where a small shrine exists. It was there that the celebrated dispute occurred between his Hindu and Muhammadan followers as to whether his body should be burnt or buried, which was solved by the body itself disappearing. The shisham tree under which he used to sit existed up to recent times, but about 40 years ago the shrine of Tahli Sahib itself was carried away, and though a new building, known by that name, has been constructed near Pakhoki, it is not considered to be of any special sanctity, as it has been moved, twice at any rate, if not three times, since the Ravi swept off the original temple. Pakhoki itself is now known as Dera Nanak, and is the head-quarters of the Bedis; it contains a celebrated Udasi shrine or Darbar, as it is called, constructed somewhat on the lines of that at Amritsar.

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(2) Amar Das.

Guru Amar Das, the third Guru, appears to have lived at Srigobindpur, as his descendants, the Bhalla Bawas, are still to be found there in considerable numbers. The sixth Guru, Har Gobind, the first champion in arms of the Sikhs, re-founded Hargobindpur, which had been formerly known by the name of Rahila, a word which it was considered most unlucky to pronounce in the early morning, owing to a curse of the Gurus to the effect that all who do so should have neither wife nor family—" jo kahe Rahila, us dá na tabbar na kabílá." His powers as an archer and warrior are still the subject of talk in the country-side, and it is said that he could shoot an arrow from the town of Srigobindpur to the shrine of Damdama, about half a mile to the west on the Amritsar road.

(3) Har-gobind.

(4) Har Rai.

Guru Har Rai, the seventh Guru, was also connected with the district, and a Tahli Sahib, or large shisham, said to have sprung from a tent peg driven in by him, exists at the village of Ghakkar Kotli in the south-west of the Shakargarh Tahsil. The tree has fallen down, but judging from the size of the trunk it must have been almost old enough to have dated back to the time of this Guru, who died in 1661.

(5) Banda.

The fanatic Banda succeeded Guru Gobind Singh in 1706 and used the district as a base from which to raid the country up to Lahore. The Emperor Bahadur Shah conducted an

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expedition against him in person in 1711, but with only temporary effect. Eventually in 1716 Banda was defeated and shut up in Lohgarh fort by Abdul Samand Khan, known as Diler Jang: after a long siege the Sikhs were starved into surrender: many of them, on refusing to accept Islam, were then massacred, but a number, including the indomitable Banda, were reserved for torture and death at Delhi. Banda's fort at Lohgarh has been identified both with the present Gurdaspur and with a village still called Lohgarh near Dinanagar, but it is asserted by Bhai Ramkishen Singh of Rupar that the site is undoubtedly a mound in the village of Bathwala about a mile north of Gurdaspur: he states that coins, iron nails and small knives are sometimes washed out of the mound during the rains.

Adina Beg.

23. The invasion of Nadir Shah in 1738 disorganised the Government and the aggressions of the Sikhs increased. It was at this point that Adina Beg begins to rise into prominence. He was the son of Chanun, an Arain of Sharakpur in the Gujranwala District, who, after living for some time in Hoshiarpur, served as a soldier at Allahabad, and then as a revenue official in Ludhiana, and from that obtained this post. After this he was made Governor of Bahrampur by Zakhariya Khan, and subsequently placed in charge of the Jullundur Doab. He founded Dinanagar on the banks of the Hasli or Shah Nahr as his residence and cantonment in 1730 A.D. (1143 A.H.) as shown by the Abjad chronogram, " khujista bina," and seems to have exercised his government mainly from that town. The adjoining village of Mughrala also is said to have acquired its name from having been used as his poultry farm. He held his post as Governor of Jullundur during the tenure of office at Lahore of Yahya Khan and Shah Nawaz Khan, sons of Zakhariya Khan, throughout the reigns of Muhammad Shah, Ahmad Shah and Alamgir II, and was still in charge when in 1747, on the invitation of Shah Nawaz Khan, Ahmad Shah Abdali invaded Hindustan, but was repulsed in the following year near Sirhind and driven across the Indus. The disorganisation, commenced by Nadir Shah's invasion, was naturally increased by this and the subsequent incursions of the Abdali, while the Sikhs, probably with the connivance of Adina Beg, seized practically the whole of the country now included in the Gurdaspur District, though they appear to have left the towns in the hands of the royal governors. At last they became so strong that their protector thought that they required a check, so, in compliance with the urgent order of the Governor of Lahore, he inflicted a bloody defeat on them at Makhowal on the Sutlej in 1752. Immediately after this, however, in accordance with his

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Adina Beg.

usual policy of playing off one side against the other, he took Jassa Singh, the founder of the Ramgarhia Misal, into his service. For a short time during the reign of Alamgir II, after the capture of Lahore by the Wazir Ghazi-ud-din, Adina Beg was transferred to that town as Governor, but was soon driven out by the return of the Abdali in 1755-56, and had to hide in the hills till the departure of the Shah in 1757. In the following year, with the assistance of the Sikhs, he recovered the governorship of the Jullundur Doab, and defeated a force sent from Lahore to drive him out, but was compelled to retire on the approach of the Wazir Jehan Khan in person. Murad Khan, the leader of the first force, was executed at Batala for his incompetent conduct of the first expedition. The Sikhs under Jassa Singh, Kalal, were now strong enough to drive the Afghans out of Lahore, and tried to get rid of Adina Beg. He retaliated by calling in the Mahrattas on the promise of payment of Rs. 1,00,000 for each march, and Rs. 50,000 for each halt. They readily complied with the request, and with the assistance of Adina Beg drove Timur Shah from Lahore and put in their ally as Governor of the Punjab, who, with his head-quarters at Batala, soon extended his power as far as Multan and Kangra. The Manjha Sikhs now turned against him, and were signally defeated by his troops; but in the same year, 1758, in which he attained the summit of his ambition, he was seized with a colic and died at Batala, whence his body was carried to Khanpur, a village near Hoshiarpur, and there buried. Other accounts represent him as having died at Khanpur.

The death of Adina Beg removed the main check on the growing power of the Sikhs, and they soon spread over the country.

The Sikh Misals, and Maharaja Ranjit Singh

24. The history of the district then degenerates into an account of the struggles of the rival Ramgarhia and Kanhaya Misals for supremacy in this part of the Doab: the power of the former was broken in 1808 and of the latter in 1811 by Maharaja Ranjit Singh, who thus assumed sway over the whole district. Dinanagar, with its pleasant mango gardens and running canal, was a favourite summer residence of the Lion of the Punjab, who, when not elsewhere engaged, used to spend here the two hot weather months of May and June, amusing himself by drilling and manœuvring his troops. It was here that in May 1838 he received with great magnificence the Macnaghten Mission on the subject of the proposed alliance with the object of placing Shah Shujah on the throne of Kabul; and it was here that the unfortunate treaty, which eventually gave rise to so much trouble,

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was practically concluded. It does not appear that he ever constructed any costly buildings at this town, where he lived mostly in camp; but the mango gardens planted by the great officers of State still survive. The district was intimately connected also with the family life of the great Maharaja. He owed much of his strength to his own marriage at Batala to Mahtab Kaur, the daughter of Gurbakhsh Singh Kanhaya; and his son Kharak Singh was married to Chand Kaur, daughter of Jaimal Singh Kanhaya of Fatehgarh. The Maharaja also married another Mahtab Kaur, daughter of a Jat of Bhabra in the Shakargarh Tahsil, who was much celebrated for her beauty. After one of his Kangra campaigns he married Raj Devi, the daughter of Mir Padma, a Pathania Rajput of Dunera, and conferred this village in *jagir* on him for his complaisance. On his death the *jagir* was resumed, but the family still survives there. From the Shakargarh Tahsil he took three other brides; he had been advised by the Pandits to marry Salehria Rajput women as this would bring him good fortune. One of these, Rani Deokhi Khurd of Antowali, built a Thakardwara at this village. Another, Mussammat Saidano, died some 25 years ago; the third Har Devi, of Chandwal, became *sati* with the Maharaja. These alliances appear to have been merely commercial transactions, and, beyond a small grant of the nature of purchase-money, the families concerned gained neither honour nor position from the match.

The Shahpur Kandi tract.

25. Little of note occurred after this until the district became merged in British territory on the annexation of the Punjab in 1848. The separate history of the Shahpur Kandi tract transferred from Kangra to this district in 1852 and 1862 is that of the parent territory of Nurpur and is given at length at pages 38-43 of the 1892 Gazetteer. There is nothing of local interest sufficiently important to be reproduced, but mention may be made of the unsuccessful attempts made to recover it for its former masters by Ram Singh, son of the last Raja of Nurpur, Bir Singh, in 1848 and 1849. In August 1848 he made a rapid march from the Jammu hills and seized the Shahpur fort: from this he was quickly ejected and fled to the Sikhs' camp at Basohli. In January 1849 he obtained two Sikh regiments from Raja Sher Singh and took up a strong position near the Tika of Dalla in the Dalla Dhar range of hills. A force under John Lawrence defeated him and he was eventually captured. A monument to two British officers killed in this encounter is still in existence on the summit of a hill in the Dalla Dhar range, and bears the following inscription:—

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The Shahpur Kandi tract.

Sacred to the memory
of
Lieutenant John Peel
1st Sikh Local Infantry
Who succumbed on 17th January 1849 to wounds
received in action
Near Dallah on 16th January
When engaged with insurgents under
Ram Singh
While gallantly leading his men.

This Tablet is placed in his memory by the Officers 51st Sikhs F. F.

The Mutiny.

26. The following account of the events of 1857 is taken from the Punjab Mutiny Report :—" One of the first precautions adopted here by the Deputy Commissioner, Mr. Naesmyth, was to send his Rs. 7,00,000 of treasure in the fort of Govindgarh at Amritsar. It was put under a guard of the Irregular Cavalry, and run through the 44 miles on the night of the 20th May by relays of bahlies or light two-bullock carts. On the 3rd June a feeling of still greater security was created in the station by the dismissal of the detachment of the 59th Native Infantry to join its head-quarters at Amritsar. Its place over the treasury was taken by a party of the police battalion, from which corps also guards had been furnished to the houses of all European residents until the 59th left. The jail was carefully watched, and interviews between the prisoners and any of their friends forbidden, lest any design to break out of jail should be formed. There was an extraordinary number of Hindustanis in this district, mostly employed on the works of the Bari Doab Canal, which has its head-quarters at Madhopur. This public enterprise had not hitherto attracted natives of the Punjab in the proportion that might have been expected. Many of the native clerks, contractors and workmen were natives of Hindustan. As such it was needful to watch them closely and to resort to espionage that any projected disturbance might be stifled at once. Two civil officers, Hindustanis of some rank in the Government service, fell under such serious suspicion that they were removed to other places, and ulterior measures against them were at one time contemplated. It was impossible to guard the river thoroughly as it was frequently fordable, and owing to its proximity to the mountains, and consequent liability to sudden freshets, no

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dependence could be placed on it as a barrier. However, all stray beams and planks which could be bound up in rafts, were cleared away, all the boats but two were withdrawn or scuttled, and on receipt of the news of the Jhelum mutiny on the 7th July these two were also sunk The river was therefore considered temporarily impassable. Two days after this came tidings of the march of the 46th Native Infantry and a wing of the 9th Light Cavalry in mutiny from Sialkot towards Gurdaspur. The news had been also telegraphed to Brigadier-General Nicholson, who was lying at Amritsar with his movable column. The signaller was drunk, and the message was not delivered, but an express sent by mail-cart reached early in the morning. He was earnestly requested to intercept the mutineers, and with characteristic energy he started the same evening with six guns under Captain Bourchier, 600 men of Her Majesty's 52nd Foot, some Sikh levies, and a few half-disciplined Sikh Horse.

To the commercial men of Amritsar and Lahore the absence of a railway was compensated for by the hundreds of native gigs or ekkas which ply unceasingly between the two cities. On the day in question the district officers of both places were ordered to seize every ekka, bahli and pony that was to be seen and to despatch them under police guards to General Nicholson's camp at Amritsar on urgent public service. The vehicles on their arrival there were promptly loaded with British soldiers, and the force started at dusk for Gurdaspur, which is at a distance of 44 miles from Amritsar, reaching it* at 3 P.M. on the 11th July. It was joined at Batala by Mr. Roberts, Commissioner, and Captain Perkins, Assistant Commissioner of Amritsar. The next day General Nicholson was told that the mutineers had crossed to the left bank of the Ravi by the ford at Trimmu. He marched, and met them drawn up in line near the river. The 9th Light Cavalry charged the Artillery fearlessly on both flanks and cut down some of the gunners, the 46th Native Infantry advanced boldly to take the guns in the face of a storm of grape which mowed them down by scores, and it was not till the 52nd leaped out on them with the bayonet that they turned and fled. The remnant of the mutinous force took refuge on an island, where they erected a battery for their gun and collected their women and their spoil. At daylight on the 16th July they were attacked in this their last stronghold. Numbers were drowned or shot in the water, many were killed in the flight, and the prisoners

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*The Gurdaspur shop-keepers for the most part absconded, but supplies for the force were arranged for by two brothers the descendant of one of whom is Lala Ram Sarn Das, now practising as a pleader in the town.

were all executed by martial law. On the 18th the columns returned to Gurdaspur."*

The fight took place on the border of the villages of Thakarpur and Wazirpur, close to the present Trimmu encamping-ground. The mutineers were stopped for a short time on the opposite bank of the Ravi owing to the want of boats, but, strangely enough, the water suddenly fell to a point unusually low for the middle of the rains and they were enabled to cross. As soon as most had crossed, however, the water rose to its normal level and blocked some of them on the island between the two streams. Sardar Man Singh of Jhun Man Singh in Tahsil Shakargarh rendered valuable services during the fight, and at the moment of victory was struck by a bullet while on his way to Mr. Naesmyth in another part of the field. He was taken to Thakarpur, where a few hours afterwards he died and was burnt in the garden to the north of the village which is owned by his family. There is a small pakka cenotaph on the spot where his remains were cremated, which is now falling into ruins. His widow received a pension of Rs. 200 till her death, and her sons Lahna Singh and Wazir Singh† pensions of Rs. 150 a year each. Bones of horses and men are still occasionally ploughed up on the field of battle, especially on the spot where a deep nala, known as the

* NOTE.—The following interesting supplementary account of this celebrated incident was kindly supplied by Surgeon-General Innes of Charmouth, Dorset, who accompanied the 52nd on the occasion in question :—

"The 46th and 35th Native Infantry Regiments, along with the 9th Light Cavalry, were quartered at Sialkot with us when the mutiny broke out; the two former were the celebrated Jalalabad regiment, that held that fort under Sir Robert Sale in the Kabul disaster of 1842-43. The 35th, with a wing of the 9th Light Cavalry, formed part of our movable column under Sir Neville Chamberlain. The 46th Regiment, with the other wing of the 9th Light Cavalry, were left at Sialkot, and before leaving we handed over all our personal and mess kit to the Quarter Guard of the 46th Regiment by order of the Brigadier. When we got the telegram at Amritsar to say the 46th and 9th Cavalry had mutinied and were *en route* to Delhi *via* Gurdaspur, the movable column now commanded by General Nicholson (*vice* Sir Neville Chamberlain, appointed Adjutant-General at Delhi) dismounted the 9th Cavalry and used the horses along with ekkas, ponies and bullock-carts to carry the 52nd Light Infantry on their night march to Gurdaspur. Two companies were left encamped on the glacis of the Govindgarh fort to guard the Ghat on the Ravi: the sick of the regiment were placed in the native hospital. To keep clean and smart the white cotton drill uniform of the regiment the Colonel had all the clothing dipped in a solution of gunpowder and water which, I believe, was the first attempt at the now universal khaki uniform, and deceived the 46th Regiment who thought that they were native levies coming against them and not a British Regiment. The 46th Regiment was drawn up in line with a squadron of the 9th Light Cavalry on each flank and they were commanded by the Subedar Major of the 46th Regiment. There was a small body of irregular *sowars* newly enlisted, about 30 in number, who accompanied one column and they afterwards became the nucleus of the celebrated Hodson's Horse. The mutineers had brought the Sialkot morning gun with them; they got it on to the island in the Ravi and it stuck there and was never fired: it was afterwards recovered and sent back to Sialkot. The whole of the mess-plate of the 52nd was flung into the river to lighten the transport and was never subsequently recovered."

† NOTE.—Wazir Singh still lives in Jhun Man Singh and has one son Thakur Singh, who is a sufedposh, and six grandsons. Lahna Singh died in 1902; a grandson of his, S. Bhagwan Singh, is Wardi Major in the 19th Cavalry: a son, Mewa Singh, has just retired from Police service and is a Darbari; his son, Autar Singh, is a Sub-Inspector of Police.

CHAP. I-B.
History.
The Mutiny.

Kala pani, used to be, as during the retreat hundreds of the mutineers were driven into this and shot or drowned. The Europeans killed in the fight were buried at Gurdaspur near the encamping-ground, but there is no memorial of the battle on the spot. Many of the surviving mutineers were brought in by the villagers and executed by Captain Adams, Assistant Commissioner, and Mr. Naesmyth in commission. Most of the party that escaped to Jammu were made over to us by the Maharaja's officers, and tried by Lieutenant MacMahon and Captain Adams at Bhikho Chak. Some of them, however, contrived to make their way through the trackless wastes of the Himalaya to Spiti, where they were beleaguered by the people until the arrival of Mr. Knox, Assistant Commissioner of Kulu, who captured the party, more of whom were then executed. During the first week in August a remnant, numbering about 25 men of the 26th Native Infantry from Lahore, found their way into the swamps of this district. They were all killed by a party of the new levy under Messrs. Garbett and Hanna of the Canal Department, and by a separate little party of the 2nd Irregular Cavalry under Major Jackson, who was seriously wounded. The raising of the levy was an important part of the work of the district officers. It was entrusted to Captain Adams and the force was pronounced one of the best bodies of men that had been recently raised in the Punjab. On this head Mr. Naesmyth makes the following remarks :—

"This general enlistment was one of the most popular, as it was among the most effective measure adopted by Government, and contributed in a vast degree to link the popular feeling in this part of the country with the British cause. A mutual interest and sympathy was created to support that cause which had now become common, deep and earnest were the aspirations which vibrated in every homestead and evinced that the military spirit of the nation had been gratified, and afforded an assurance that its valiant sons would not be backward in vindicating the trust bestowed."

Constitution of the district.

27. The district has only gradually assumed its present form. After the Sobraon campaign, by the treaty of Lahore, concluded 8th March 1846, the Jullundur Doab, including the Kangra District, was ceded by the Lahore Darbar as a war indemnity. The boundary of the Kangra District was demarcated by a commission, and ran from just below the present head of the Bari Doab Canal in an almost straight line to the old bed of the Chakki near Dhangu, whence it followed the course of the eastern branch of that stream in its junction with the Beas. After the annexation of the Punjab in April 1849, Mr. C. B. Saunders was directed to form a new district of Adinanagar which should include two-thirds of the Bari Doab north of Amritsar. Adinanagar was selected as the head-quarters as Batala

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History.
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was considered to be too far south. The administration was to be based on the regulations in force in the North-West Province. The Adinanagar District was that settled by Mr., afterwards Sir, H. Davies, and included the whole of the present Gurdaspur Tahsil, the greater part of the Batala Tahsil, and the 181 villages in the Pathankot Tahsil south of the boundary defined in 1846. In July 1849 the civil officers and military escort were transferred to Batala and established in Maharaja Sher Singh's house at Anarkali, as Adinanagar was thought to be unhealthy. In the autumn Batala was considered to be too much exposed to floods, and so Gurdaspur was selected as a suitable site for the station; and after some further doubts as to its healthiness the name of the treasury and district was finally altered from that of Adinanagar to Gurdaspur on 1st May 1852.

In the meantime work had been commenced on the Bari Doab Canal, and in 1850 it was deemed desirable to place the whole course of the canal within one district; so, with effect from 1st March 1852, 83 villages south of a line running from the Ravi at Shahpur to the Chakki above Pathankot were transferred to Gurdaspur. The Revenue Survey was then well advanced, and at the revision of the boundaries of tahsils and districts in 1853 the Shakargarh Tahsil was transferred from Sialkot; the boundaries of Gurdaspur and Batala were fixed much on their present lines, some 107 villages in the south-east being added to the latter from Amritsar; and the delta between the Ravi and Ujh, containing 99 villages, was cut out of Shakargarh, and with 181 villages from Gurdaspur and the Kangra villages formed into a separate tahsil with head-quarters at Pathankot.

The district was then formed as follows :—

Tahsil Pathankot in the north-east.

Tahsil Shakargarh—trans-Ravi, except Chak Andhar.

Tahsil Gurdaspur—the central portion of the Bari Doab.

Tahsil Batala—the southern portion of the Bari Doab.

In August 1860, the hills upon which lies the Dalhousie sanitarium, having been acquired in 1853 from the Chamba State, were transferred from the Kangra to the Gurdaspur District, and in the April of 1862 this transfer was supplemented by the further transfer to the district of the strip of hill country already described as lying between the Ravi and Chakki and intervening between Dalhousie and the plains. In 1861 Raja Teja Singh's *jagir* was consolidated in the south-west of the Batala Tahsil and his head-quarters were fixed at that town and a considerable jurisdiction over the jagir villages was conferred on

CHAP. I-B. History. Constitution of the district.

him with the title of Raja of Batala. A new tahsil was formed at Kadian, but on the death of the Raja on 2nd December 1862, the *jagir* was resumed and the former tahsil reconstituted. In April 1867 the Batala Tahsil was transferred to Amritsar, but was re-transferred to Gurdaspur on 1st April 1869, as the arrangement did not work satisfactorily.

Antiquities.

28. Among the numerous buildings and remains of archæological interest in the district a few may be called important.

There are some interesting rock-temples at Mukeshwar on the Ravi, some five miles above Shahpur: they are said to be very ancient and to date back to the time of the mythical Pandavas. The smoke-blackened pillars and the carvings here must however be very old. Stories are told of Arjan's and Parbati's visit to the place: a long cleft in the rock a little way up the river is known as "Arjan's *chula*" and is to be seen from the road where it winds round the side of the Dalla Dhar, a thousand feet above. The present custodian is an old Saniasi, Kanhiya Gir, who hails from Jammu. The inscription at the door-way of the main cave is said to be some Deccani script, but it does not appear that it has ever been translated. A few years ago, a Sadhu from another rock-temple on the Karnal nala below Hardo Sarn was caught in the Mukeshwar cave by an unexpected rise in the river: the floods continued for nine days during which the Sadhu was imprisoned in the temple and was only saved from starvation by the miraculous appearance of a Gaddi's skin-bag full of flour which was floated into the mouth of the cave by the flood.

The last camp of Alexander the Great before he began his return march is supposed to have been on the bank of the Beas, probably in this district, but all trace of the twelve enormous altars of hewn stone, which he is said to have left on the spot, has been lost, it is to be feared irretrievably. The masonry platform upon which Akbar was crowned at Kalanaur in 1556 A. D. has already been mentioned. This is now protected by a railing and is in charge of the Public Works Department. Close to the same spot is the fine tomb of Jamil Beg, one of Akbar's Generals. A coalition of hill-chiefs, Basu of Sirmur, Budh Singh of Nagarkot in Kangra, and Paras Ram of Jammu, had been formed against the paramount power. Troops were sent from Lahore under Zain Khan, Koka, but failed to reduce the insurgents, and Jamil Beg, son of Taj Khan, was sent in support, with another force against Raja Basu. In the battle which ensued he fell gallantly fighting, and was brought to Kalanaur

and buried there, in this tomb erected by his sorrowing father, Taj Khan, who wrote a Persian elegy on the sad occasion, some of the verses of which are still inscribed on the walls of the tomb. The geometrical coloured tracery in this is very effective, and much resembles that in the tomb of Asaf Jan at Shahdara. Kalanaur indeed was a famous place in old times: there was an ancient proverb which said "that he who has not seen Lahore, at least let him see Kalanaur." It is said to have been originally founded by Hindu Rajas and the numerous ruins in its vicinity sufficiently attest its antiquity. A temple to Shiv on the bank of the Kiran close to the town draws large numbers of people at the Shivratri festival.

Kahnuwan, which gives its name to the well-known marsh, possesses several ancient buildings. The chief of these are the shrine of Shah Burhan, a Muhammadan saint, who flourished in the reign of Jahangir, the *gupha* or subterranean shrine of the Bairagi Bhagwanji, a Matt of Saniasis and a considerable *jogimandir*. A curious tradition attaches to a large *baoli* or well just below the high bank, which, though in good condition, is not used. The story runs that one of the leading Rajputs had two wives who annoyed him by their perpetual squabblings, and so to settle the question he constructed this *baoli* and buried his wives under the pillars at the bottom of the steps leading to the water, grimly remarking that at any rate they would have to lie side by side in peace for the future.

At Pindori, which, as noted in Section B, was closely connected with Kahnuwan, the old temple built by the Emperor Jahangir still stands, though overshadowed by the magnificent new temple overlooking the marsh. The place was much resorted to by the rulers of Kashmir and the Kangra hills. There are 13 *samadhs* representing 13 *gaddis* or succession of *gurus*, of which the best known were Bhagwanji, his two *chelas*, Narainji and Baba Mahesh Dasji and Baba Hari Ramji, who migrated to Dhamtal and founded a *gaddi* there. Close to the *samadh* of Baba Mahesh Dasji is a smaller one to his dog who is said to have survived a dose of about 1¼ maunds of opium administered to it by the Guru as an exhibition of his spiritual powers. The copper plate on which are inscribed the terms of the grant of pasture by the Emperor Jahangir is still preserved at the shrine.

There is also a square piece of crystal, bearing an inscription, which is said to possess magic properties, and dates from the time of Hari Ramji, the fourth *Guru*. There are said to be fifty or sixty branches of this shrine scattered all over India.

CHAP. I-B.
History.
Antiquities.

The town of Batala was founded by Rai Ram Deo, a Bhatti Rajput from Kapurthala, during the time of Bahlol Khan, Lodhi, in 877 A. H. (1472 A. D.). The country between the Sutlej and Chenab at that time was to a great extent lying waste, owing to disastrous floods and the ravages of Jasrat Ghakkar, and the revenues of the province were farmed to Rai Ram Deo by Tatar Khan, the Viceroy, for nine lakhs of *tankas*. Ram Deo became a disciple of Sheikh Muhammad Kadiri of Lahore, and was converted to Islam. The spot first fixed upon for the city was considered unpropitious, and so, at the advice of the astrologers, it was exchanged for that on which the present town now stands, whence the name Batala, from "batta" or "vatta", exchange. The tomb of Ram Deo, consisting of a brick building, with a sloping dome supported on enormously thick walls constructed of bricks laid in mud, still exists to the south-east of the town, and Mr. Rodgers, judging from the slope of the dome, correctly ascribed the date of its foundation to the later Pathan or Lodhi times. In Akbar's time Shamsher Khan, a eunuch, and the Karori of Batala built a fine tank to the north-east of the town in 925 A.H., and planted gardens in the suburb known as Anarkali, where his tomb still stands close to the tank which bears his name. The city was enriched with a bazar and shops constructed in Aurangzeb's reign by Mirza Muhammad Khan, who received the title of Wazir Khan, with a Jama Masjid by Kazi Abdul Hak, and a fine garden in three terraces constructed by Amar Singh, Kanungo. Batala at this time enjoyed a great reputation for learning and piety. The saints Shahab-ud-din, Bukhari, Shah Ismail, Shah Niamatullah and Sheikh Allahdad lived here. The tomb of the first named exists in the quarter still occupied by his descendants, the Bukhari Sayads. A tomb said to be that of his still more distinguished kinsman, Mauj Darya, stands at Khan Fateh, a village about five miles to the west, but it is very doubtful whether this, or the tomb at Lahore, really contains the body of the saint.

During the regin of Farrukhsiar Sayad Muhammad Fazal Gilani established a college here, which attracted students from distant parts of the country. This was, however, destroyed by Banda; and the town soon lost its reputation for learning and piety, which had gained for it the title of Batala *Sharif*, and is now branded rather with the epithet of *Sharir* owing to the tricky and worthless character of a considerable section of its inhabitants.

Batala was also the centre of the petty warfare constantly waged between the rival Sikh Misals of the Kanhayas and Ram-

garhias. From 1798 to 1811 the former Misal was ruled by Musammat Sada Kaur, the widow of Gurbakhsh Singh. This remarkable woman is still remembered at Batala, which she appears to have administered with great energy and tolerable success. To the south of the city, close to the wall, still exist the remains of her citadel, consisting at present of a very lofty mound, and there are two smaller out-works, said to have been constructed by her on the west and north of the town. She appears to have again been given a grant of Batala and Pathankot, as in 1820 she was called upon by Maharaja Ranjit Singh to make over half her possessions for the support of alleged grandsons, Sher Singh and Tara Singh. At first she refused, but eventually Ranjit Singh, as usual, got her into his power by guile, and then sent a force, which took over all her estates and personal property. She was after this kept in confinement till her death in 1832, and Batala and the Kauntarpur territory was assigned to Sher Singh. This prince lived here almost entirely until his accession to the throne in January 1841, and the old people of the country round Batala and Kahnuwan used to be full of stories of his prowess as a mighty hunter. His palace at Anarkali, near Batala, built somewhat in the Italian style, is an imposing pile in its way, and commands a fine view of all the country round. It is now leased for 99 years to the Church Missionary Society. He also converted Shamsher Khan's mosque, in the centre of the large tank at Anarkali, into a pavilion, which still exists.

The antiquities connected with the names of the various Sikh Gurus have been noted above, but those of Dera Nanak require some further notice.

It boasts of a handsome Sikh golden temple dedicated to Baba Nanak. This is called the *Darbar Sahib*, and is a place of Sikh pilgrimage.

In the years between 1744 to 1754 A.D., the Bedis, descendants of Baba Nanak, purchased lands and laid the foundation of the town of Dera Nanak. There they built a *kacha* temple on the spot where Baba Nanak used to sit or offer his prayers to God. Diwan Nanak Bakhsh, *wazir* to the Nawab of Haidarabad, Deccan, offered a sum of Rs. 50,000 for the building of a brick temple. Subsequently, Raja Chando Lal contributed a large sum of money to its construction. In 1765 A.D., the construction of the temple was begun through the agency of Bedis. The work was finished in 1787 A. D. In 1825 A.D. Maharaja Ranjit Singh offered a handsome contribution for the completion of the work, and it was completed in 1827 A.D. Rani Chand Kaur, on the occasion of her succession to the throne, caused a portion of the temple to be decorated with gold leaf.

CHAP. I-B.

History.

Antiquities.

There is also a second temple, known as the Tahli Sahib, from a large *tali* or shisham tree, which stood close to it. This temple was erected by Baba Sri Chand, the son of Guru Nanak Sahib. In 1869 the temple was carried away by the Ravi, and in place of it the people constructed another on the other bank of the river in the village of Mulowali near the Fatehgarh road, but it was again moved to the present building situated a short distance outside the town to the north. The town also contains a precious relic in the shape of a coat, once worn by Nanak. This *chola* is said to have been presented to Nanak when he visited Mecca and is inscribed with thousands of Arabic words and figures. The garment is kept wrapped up in innumerable coverings of all kinds presented by pious followers of the *guru:* it takes a couple of hours to remove these and obtain a glimpse of the sacred coat.

Towards the middle of the seventeenth century, Bahrampur near Dinanagar sprang into prominence. It was founded by Haji Bahram Khan, at one time Chakladar or Governor of Jammu and Kangra, which were under the control of the Bahrampur District. A fine old mosque, now falling into ruins, built in 1684 by Haji Bahram Khan in consequence of a bequest by his elder brother Haji Rajab Ali, and a large Idgah are perhaps the only memorials of the palmy days of Bahrampur, which is now a mass of old brick buildings rapidly falling into decay, since all its trade has been usurped by Dinanagar on the railway three miles off. It was here, however, that in Shah Jehan's time the forces under Prince Murad assembled for the campaign against Raja Jagat Chand of Nurpur, and hence they marched to Pathankot before attacking Nurpur, Man and Taragarh. The town is also noteworthy, as the first position of any consequence obtained by the well-known Adina Beg who was Governor of Bahrampur, a post to which he was raised by Zakhariya Khan, the Viceroy of the Punjab, during the reign of Muhammad Shah.

Maharaja Ranjit Singh's buildings at Dinanagar are now put to baser uses. His ladies' apartments are utilised as an office for the Municipal Committee and the house occupied by General Ventura is now a rest-house.

Dhianpur, to the left of the road from Batala to Dera Baba Nanak, is a well-known shrine of Bairagis of the Ramanandi sect. The founder was Baba Lal Ji who is said to have lived in the time of the Emperor Shah Jehan. Dara Shikoh, the son of the Emperor Shah Jehan, used to have frequent religious

disputations with the saint Lal Ji and the doctrine of monotheism was the favourite topic of discussion; so much so, in fact, that Dara Shikoh is said to have adopted his opponent's views and was therefore regarded by Muhammadans as a heretic. In the main building there are painted on the walls pictures of the saint and Dara Shikoh engaged in conversation on religious subjects. CHAP. I-C. Population. Antiquities.

Lehl, near Dhariwal, is an important branch of the Pindori *gaddi* and barren women resort to it for the purpose of obtaining issue, which the Mahant is said to bring about by the use of *jantras*.

The shaking wall belonging to the Mahants of Gurdaspur is well-known as an architectural wonder.

Rattar Chattar, near Dera Nanak and Masanian, near Batala, are seats of Sayyad Pirs: the former has a mausoleum and a cluster of tombs of religious teachers, while the latter possesses a fine mosque with lofty minarets.

At Achal, a few miles from Batala, there is a temple to Shiv or Achleshwar Maharaj; it is situated in the middle of a tank and is said to date back to the time of the mythical Kauravas and Pandavas.

Ghoman Pindori in the Batala Tahsíl has a temple of Baba Nam Dev, the miracle-working saint of the Muhammadan ascendancy.

Jakhbar, near Narot Mehra in Pathankot Tahsil, is a shrine of Jogis. The Emperor Akbar favoured this *Gaddi* and granted *Pattas* in the form of copper plates inscribed with leases of cultivation. These copper plates are still preserved. The place, however, is decreasing in popularity and importance.

Section C.—Population.

29. The figures for distribution of population are given in Table 6. Density

This district stands eighth in actual number of inhabitants according to the 1911 Census.

It is fifth in mean density of population per square mile of total area, Jullundur, Amritsar, Delhi (now no longer in the Punjab) and Sialkot exceeding it in this respect: the closeness of cultivation so noticeable over the district generally is much relaxed in the hill circle of Pathankot where the fields lie

CHAP. I-C. Population Density.

in patches in the midst of the low hills with their scrub jungle, and to a less degree in the barren and denuded downlands of the Bharrari of Shakargarh. This fact is apparent from figures for incidence of population per square mile and per cultivated square mile as given in the margin for each tahsil.

Tahsil.	Incidence of total population	
	Per square mile.	Per cultivated square mile.
Gurdaspur ..	453	615
Batala ..	566	721
Shakargarh ..	433	608
Pathankot ..	360	664
District ..	456	651

The Batala Tahsil indeed is second only to that of Sialkot among the tahsils of the Province for density of population, and the marked congestion throughout the district is still further emphasised by the absence of all large towns, except Batala. On the formation of the new colonies on the Chenab and Jhelum some relief to the pressure on the soil here was given by the grant of land to selected colonists: in the Census Report of 1911 it is estimated that, of the total population of the Chenab Colony alone, 52,701 persons are emigrants from Gurdaspur; these emigrations took place mainly in the decade preceding 1901; since which year plague has laid a heavy hand on the district.

Towns.

30. The district is essentially an agricultural one and there is only one town of any importance: this is Batala, with a population of 26,430 souls. Manufactures of cotton, silk and iron sugar-mills are carried on on a fairly large scale, while the railway also has made the town the centre of a considerable trade in wheat and sugar. There are several Christian missions here which will be discussed in a later chapter. Population is kept down by plague and tends to remain stationary.

Pathankot (population 7,007) is the present terminus of the railway and most of the trade from the Chamba State and Kangra District converges on to it. It is also the point from which the road journey to Dalhousie and Dharmsala, Mandi and Kulu must start. Quantities of rice are exported: there is a flourishing trade in bamboos and in *joras*, a species of *loi* or shawl. Population is increasing here, though the number of persons merely passing through or temporarily located here makes the exact extent rather uncertain.

Gurdaspur (population 6,248) owes its importance entirely to its position as the head-quarters of the district and has grown from a small and insignificant village into a town. There are no manufactures worth notice: four flour-mills exist and a new

CHAP. I-C. Population. Towns.

and thriving *mandi*, not yet finally completed, accommodates not only the grain trade of the greater part of the tahsil but also the rice-imports from across the Beas in Hoshiarpur. Population tends to increase.

Sujanpur (population 5,512), four miles from Pathankot, has a carpet factory, and an offshoot of Khan Bahadur Sheikh Ghulam Sadik's Amritsar factories, and a colony of Kashmiris who make *joras*. The Distillery Carbonic Acid Gas and Sugar Factory here is well known : it is owned by a company and managed by Mr. J. H. Herdon. Population remains stationary.

Dalhousie with Balun is a hill sanitarium ; 3 wings of British infantry regiments are usually there in the hot weather and the Commissioner of the Lahore Division and the General of the 3rd Division with the Brigadier of the Jullundur Brigade make it their summer head-quarters. The population of course varies greatly according to the season : it was 1,582 only when the general census was taken on March 10th, 1911, but at the special summer census taken in 1911 it was 7,592, of whom 5,826 were males and 1,766 females. The detail was—

Hindu	3,210
Sikh	130
Muhammadan	1,795
Christian	2,445
Others	12
Total ..	7,592

The remaining towns are of little importance, in every case the population has declined and all of them are in a state of greater or less decay.

Kalanaur (population 4,606), 15 miles from Gurdaspur, has already been referred to in Section B of this chapter : its ancient glory has departed and it is now in a state of decay. A large slaughter-house exists here from which a considerable number of hides are exported. Beyond its historical interest it has no claim to notice as a town.

Dera Nanak (population 4,556), 18 miles from Batala, is also a town of past associations though it possesses a fine Darbar Sahib dedicated to Baba Nanak and is a place of much resort by pilgrims. The town is the head-quarters of the Bedis, the spiritual descendants of a son of the first Guru. Shawls are embroidered here, but there is now little left of its old trade in cotton and sugar.

CHAP. I-C. Population. Towns.

Dinanagar (population 4,154) derives its name from Adina Beg, who made it his head-quarters. Apart from its historical connections it is now remarkable for little but the malodorousness of its drains and environs.

Srigobindpur (population 3,150), on the Beas, 18 miles from Batala, is a place of great sanctity among the Sikhs, having been founded by Guru Arjan who named it after his son and successor Sri Hargobind.

The transfer of river traffic to the railway has much reduced its importance and it is now hardly more than a local centre of the sugar-industry and of the manufacture of wooden combs.

Of other towns may be mentioned Fatehgarh in Batala, with a shawl-making industry, Bahrampur in Gurdaspur, named after Bahram Khan, one of Akbar's Generals; Sukho Chak, Darman and Nainakot, small rural centres in Shakargrarh; Narot, the mart of the Chak Andhar of Pathankot, and Shahpur, which is placed on the high bank of the Ravi in the same tahsil and forms a depôt for the Jammu imports.

Character of villages.

31. The following description extracted from paragraph 20 of the 1911 Census Report is applicable to the typical villages of the Gurdaspur, Batala and Shakargarh Tahsils and to most of the villages in the plains portion of the Pathankot Tahsil :—

"The village is generally a large collection of thickly populated houses, usually built on an eminence with due regard to the convenience of a good supply of drinking water. The structure as it now stands indicates no system or design, but a close examination of several villages of the type shows that they were originally built on a comparatively smaller scale, on a definite plan, which though crude was yet quite suitable to the requirements of the founders of the village. The principle borne in mind appears to be to have a bazar or road somewhere in the middle into which opened the shops that were required for the commercial needs of the inhabitants. The houses were built with their backs to this bazar and opening into the fields or open country where the strength of the population was small, or with courtyards leading into the bazar. Where the population to be housed was larger, the houses were built in double rows with a narrow lane between each two lines. The houses opened into these lanes which were duly connected with the main street. This appears usually to be the nucleus of the village homestead, which was gradually added to as the pressure of population necessitated the erection of new structures. Family associations, the desire to be near friends, and the ownership of particular plots, resulted in the new buildings being erected in all sorts of odd corners, as close to the old buildings as was possible. The original design had, therefore, to be given up and additions went on in different directions as chance permitted. Excavations for building purposes created ponds for the storage of rain water for the use of cattle and for other requirements. The village pond, perhaps, stopped the symmetrical growth of buildings on one side; on another probably some natural obstacle proved a hindrance and room for extension was left only in one direction or two. The village *chaupal*, and the village temple, *dharamsala* or mosque, situated in some convenient quarter of the village, form the almost

Character of villages.

universal characteristics of villages of this class. The scavengers usually live in a hamlet, situated at a little distance from the village itself or are located in some unimportant corner thereof, and the other menials are allowed to live in the bye-lane or in some place on the skirts of the village. In the stronger villages, the village money-lender usually has a *pakka* house built of burnt bricks, often double storeyed, and the number of such houses indicates the prosperity of the village."

In the hill tract and in several of the plains villages in Pathankot, more particularly in the Chak Andhar and Pathanti, the houses are usually thatched, with sloping roof, and in the hill circle the villages consist of hamlets scattered about the cultivated area. The compactness of the ordinary plains villages appears to have been deliberately designed for defence against outside enemies, but in the hills no such purpose is evident.

Population at last four Censuses.

32. The table below gives the census figures for population in each tahsil at the last four censuses :—

Tahsil.	Population in			
	1884.	1891.	1901.	1911.
Gurdaspur	208,228	252,002	258,379	224,515
Batala	255,131	300,644	305,867	269,706
Shakargarh	219,511	250,336	234,465	210,447
Pathankot	140,825	140,850	141,623	132,103
District	823,695	943,922	948,334	836,771

The enumeration at the last census shews little increase over that taken thirty years before. From 1881 to 1891 (owing probably to the unusually low numbers of the 1881 census) there was a more than normal increase, except in Tahsil Pathankot, where, if disturbing causes are absent, the population is stationary. In Gurdaspur and Batala the small increase between 1891 and 1901 would have been much greater and the population of the district would probably have reached a million but for the considerable emigration of colonists to the Chenab Canal tract. In Shakargarh there was an actual decrease : this marked the beginning of the plague epidemic which started in that tahsil in the last quarter of 1900 : the mortality in the first few months of the epidemic and until the 1901 census was taken would not of itself account for the decrease which is mainly to be

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attributed to the flight of persons from the infected area. For the next six years, the death-rate exceeded the birth-rate, and in 1904, with malaria aiding plague, it rose to about double its average incidence. Since 1908 more normal conditions have begun to re-assert themselves and births have exceeded deaths. Nevertheless plague has not relaxed its grip and there are no signs that this scourge, with its sequelæ of enfeeblement and infecundity, has yet exhausted itself. The tendency of the disease to attack females has still further widened the gap between the figures for male and female population, and the former now represents 56 per cent. of the total as against 54 per cent. in 1881. Although plague has overshadowed all other diseases during the last decade, the mortality from fever must not be lost sight of. Its effect will be discussed in a subsequent paragraph. As has often been pointed out, the decrease in population has this advantage in a congested district, that it relieves the pressure on the soil, but the rise in prices, the enhanced demand for labour, and the emancipation of the menial classes have produced an economic disorganisation which is a formidable item in the account on the other side.

Migration.

33. As is natural in a congested tract, the tide of migration is from, rather than to, the district. By far the greatest of all attractions to the emigrant is the Canal Colonies, and the figures for emigration to Gujranwala, Jhang and Lyallpur amply attest this. The lower classes are equally drawn to centres like Lahore, Amritsar and Ferozepore by the high rates of wages prevailing there. There is no other remarkable emigration or immigration. The Nepalese shewn are Gurkhas in the 4th Gurkha Rifles at Bakloh. The movement across the border of adjoining districts and back again is not of any moment, and is of course largely due to interchange of brides.

Gaddis with flocks of sheep and goats and Ban Gujars with herds of buffaloes descend from Chamba into the low hills and the adjacent plains of Pathankot to avoid the rigours of the winter in the upper hills and retreat again with the spring.

Vital statistics.

34. The registers of vital statistics are maintained by *chaukidars*, supervised by District Officers and the officials of the Vaccination Department.

The system is generally satisfactory. Deaths from plague, however, are occasionally concealed by false entries of the cause of death. Errors and omissions detected by supervising officers are noted in the birth and death registers. The mean birth

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Population.
Vital statistics.

and death rates of the district as compared with the Provincial averages for the year 1911 are as follows :—

—	Birth.		Death.	
	1901.	1911.	1901.	1911.
Gurdaspur	39·3	45·4	37·8	42·3
Province	35·4	43·9	36·1	34·0

Table 11 (births and deaths) shows that in the year 1911 fever claimed as many as 11,167 victims and plague 14,572. Parts of the Pathankot and Gurdaspur Tahsils are very damp and are thus productive of lung and bowel disorders as well as of malaria; Shakargarh Tahsil especially has suffered heavily from plague. In the hill tracts and in the tahsil of Pathankot goitre is very common. Plague first appeared in the district in the village of Darman in Shakargarh in the year 1900, and spread to other tahsils in the year 1901. In no subsequent year has the district been free from plague, and the epidemic reached its height in the year 1904 when the total mortality from this cause was 40,806. Mortality dropped to 309 in the year 1908 when malaria accounted for 21,983 deaths.

Inoculation for plague is still looked upon with distrust by the people. During the epidemic of 1910-11 nearly 15,000 deaths from plague occurred and more than 600 villages were infected, but only 8,682 inoculations were performed. In the year 1911-12 there were about 2,000 deaths from plague; 210 villages were infected and 6,410 inoculations were performed. In 1912-13 very few inoculations were performed and it seems unlikely that this measure will increase in favour.

Rat-destruction by traps and baits is still being carried on and smoking of rat-holes with sulphur-fumes was introduced last year. Sujanpur has been systematically "smoked" this winter and Pathankot and villages round Kahnuwan are being similarly treated. So far, however, the people have not received the measure with any enthusiasm and progress is necessarily slow.

CHAP. I-C. Population. Infant mortality

35. In the following table figures are given for the last five years to illustrate infant mortality and its relation to the whole mortality and to the birth rate :—

Year.	Birth rate.			Death rate of children under 1.			Death rate of children 1—5.			Total death rate of district, all ages.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1909	18·7	17·3	36·0	4·5	3·9	8·4	2·5	2·8	5·3	28·8
1910	21·7	19·8	41·5	4·5	3·9	8·4	2·9	2·9	5·8	36·9
1911	23·5	21·6	45·1	4·3	3·6	7·9	2·7	2·6	5·1	42·3
1912 ..	24·9	23·3	48·2	4·3	3·4	7·7	2·1	2·0	4·1	26·4
1913	22·4	21·1	43·5	4·7	3·9	8·6	3·1	3·2	6·3	26·6
Average.. ..	22·2	20·6	42·8	4·4	3·7	8·2	2·6	2·7	5·3	32·2

From the above it is apparent that the birth rate of females is lower than that of males. Female infanticide is said no longer to exist in the district.

Birth customs.

36. The *rit* ceremony which is performed in the case of the first pregnancy is observed only by Hindus. In the eighth month of the pregnancy the girl's parents send her some flour, rice, *mash* and clothes along with a rupee and some articles, namely, almonds, *gari* (the kernel of a cocoanut), and *mewa* (raisins), &c., collectively known as *bid*. The *bid* and the rupee are placed in her lap and the remaining things are cooked and distributed to the *biradari*.

A little before birth some mash and salt are sacrificed over the head of the girl and made over to the *dhai*. Immediately after birth some copper, silver or gold is placed in her mouth and she takes it out and hands it over to the *dhai*. The *dhai* then cuts the *naru* (navel string) at a distance of 3 or 4 inches from the navel and is given a rupee for the operation. The remaining portion of the navel string is then tied to the infant's neck with the sacred thread of its father or grandfather. The string dries up in two or three days and is then thrown over a

pipal or *ber* tree along with the thread with which it was tied. At the birth of a boy leaves of the *sarin* tree are tied to the door of the house.

The infant is only given sugar to lick till stars appear on the night following its birth. Then the mother's breasts are washed by an unmarried girl with cow's urine applied by means of *darub* (grass blades) and the infant is then suckled. The unmarried girl is given a present of money. Some article of iron is always kept on the mother's couch as a protection against evil spirits. In some tribes, if the infant is a son, the mother sleeps for four or five days after delivery on the ground. A lamp is kept burning day and night for five days after birth in the mother's room. The lamp is placed upon an unused pitcher containing five pice and five seers of *gur* which are afterwards made over to the *dhai*. Among Khatris and Brahmans the mother keeps a *barat* for five days after birth. During this period she has to eschew grain and content herself with milk, sugar and *ghi*. After five days she bathes with warm water containing some leaves of *methe* or *senji* plant or *wana* tree which are believed to be heating in their effect. She then gives some money in charity, leaves her room and resumes her usual food. Immediately after leaving the room she throws some cotton-seeds and barley in the direction of the moon or stars.

On the thirteenth day after birth the *sutra* ceremony is performed which consists in the tying of a cotton thread round the infant's neck. In the case of a girl only Brahmans are fed, while in the case of a boy the *biradari* is also feasted and women sing and brass bands play.

The naming ceremony is performed at the *sutra*. The priest suggests several names with reference to the infant's time of birth and one of these is chosen by the father.

Among Sikhs the Granth Sahib is opened by a *Bhai* and the infant is given a name beginning with the first letter of the page at which it opens.

The only peculiar ceremony observed by Muhammadans is the reciting of *Azan* in the right and of *Takbir* in the left ear of the infant by a *mullah* who is usually given some *gur* and a rupee. The *Aqiqa* ceremony which is also enjoined by the Muhammadan religion is not always observed, but those who observe it kill two goats for a boy and one for a girl and feast their friends and the *biradari*. This ceremony is performed on the 7th day after birth. The infant's head is shaved the

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same day and the barber is given silver of the weight of the hair or a rupee. The village blacksmith brings a pair of iron anklets, the carpenter a small wooden stool, the *dhobi* a parrot made of cloth for the infant, and each of them is given a present of money. The leaves of the *sarin* tree which are hung up by some Muhammadans also as a sign of the birth of a son are supplied by the *barwala* of the village who is also given a present of money.

Betrothal customs.

37. There is not much difference as regards betrothal and marriage ceremonies between the Hindus and Sikhs. Among the latter the Singh Sabha is introducing some reforms with the object of eliminating idol-worship, but these have not yet come into vogue. The following description applies therefore both to Hindus and Sikhs :—

Before the commencement of the betrothal ceremonies the father of the boy and that of the girl come to an understanding by means of letters or through their trusted agents who may be *lagis*, relations or friends. The initiative in the matter of ceremonies is taken by the father of the girl who sends his barber with a cocoanut, a few dried *chhuaras* (dates) and some sugar, a *mohar* or a few rupees for the boy and some money for the *lagis* of the boy's family. On the arrival of the barber the *pahnda* is called and the *biradari* is assembled. The *pahnda* makes a *chaunk* or square of flour and recites some *mantras*. A *chhuara* is applied to the boy's mouth, and the sugar, the nuts and the money intended for him are delivered to him. A mark of saffron is put on his forehead and some saffron is sprinkled on his clothes. A piece of *mouli* (coloured thread) is tied round the wrists of any of his male relations who may be present. The latter give some money to the boy as *shagan*, and some to his father for distribution to the *lagis* as *sarwarna*. Sugar is then distributed to the *biradari*. The barber of the girl's family is then sent back with some money for himself, as *rukhstana*, and some for the remaining *lagis* of the girl's family, and with some ornaments, clothes, sugar and *mahndi* for the girl. On his return to the girl's village the *mahndi* is applied to her hands and the clothes and ornaments are put on her at some auspicious time chosen by the *pahnda* of the village.

Rites prior to the wedding.

38. The date for marriage is fixed with reference to the convenience of the parties and the result of the examination of the horoscopes of the boy and the girl by their respective *pahndas*. An intimation of the date is sent by the father of the girl to the father of the boy by *sáhá chithi* which is written by the *pahnda* with saffron and has also some saffron sprinkled

over it. The *lagi* who carries the *sáhá chithi* is usually paid a rupee. The date is fixed about 2 or 3 months before the marriage.

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Rites prior to the wedding.

Some days before the marriage, at a time which is considered by the *pahnda* to be auspicious, some *mash* is soaked in water and ground into *pithi*, some of which is put on the boy's hand and the rest distributed to the *biradari*. This is followed by the distribution of *gur* and *gunas* (a kind of sweetmeat made of *gur* and flour) to relations and friends as an invitation to the marriage. Then comes the distribution of *ghungnis* (boiled wheat) as an invitation to female relations to come and sing. The singing takes place every night till the marriage.

Some days before the marriage the oil ceremony is performed. A little oil is applied by the priest to the boy's head with a brush made of grass blades and a *kangna* (a piece of thread containing an iron ring, a cowrie, a small thread of *bhura* or blanket, a few grains of rice and some sugar) is tied to his right wrist. The *kangna* is a charm for protecting the boy from evil spirits and the evil eye. On the day of the oil ceremony as well as every third day after it the boy's body is rubbed with *batna* (a scented powder consisting of barley flour, turmeric, *lakhlakha* and *kachur*). The boy sits during this operation on a stool and a sheet of red cloth is held over him and the women of his *biradari* sing. The boy's mother gets on the day of the oil ceremony a suit of red clothes from her parents, wears it throughout the marriage ceremonies and makes it over to her *lagis* after they are over. After the oil ceremony the boy is said to be in *mayan* and does not change his clothes till the day of the *sehra*.

The *khárá* ceremony is generally performed before the starting of the marriage procession, but if a river or stream has to be crossed or if a night is to be passed in the way this ceremony is deferred by some till this event has happened. During the performance of the ceremony the boy sits upon the *khárá*, surrounded by singing women with a sheet of red cloth spread over him. Beneath the *khárá* is placed a lamp of flour containing *ghi* instead of oil. The boy bathes and then wraps himself in a red cloth and his maternal uncle lifts him from the *khárá*. While leaving the *khárá* he breaks five *chapnis*, previously placed near it, with his foot. The maternal uncle then makes him a gift of some cattle or money. The *jhiwar* who supplies water and the barber who assists in the bathing and the subsequent toilet, are given their *lágs*. The priest ties a thread of silk to the boy's wrist and is also paid a *lág*.

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After the *khárá* ceremony the boy puts on new clothes, and those he has been wearing till now are made over to the barber. The new clothes consist of a yellow turban, a yellow gown and a *dopatta* of the same colour, a shirt and *pajamas* which may be of any colour. The *sehra* or garland is then tied to the boy's turban by the priest. The near female relations of the boy then give him a rupee each as *salami* and his male relations give their *neondra*. The boy is then ready to start. On his leaving the house, the wife of the barber pours some oil on the threshold and the wife of the *jhiwar* meets him with a vessel full of water. Each of them is paid a rupee. Outside the house he mounts a horse, his brother's wife puts *surma* (antimony) into his eyes, and his sister seizes the bridle and has to be paid something as an inducement to allow him to proceed.

The marriage procession is then formed on as large a scale as the circumstances of the boy's father permit. This is known here as *charhat*. The procession proceeds to a *gurdwara* or to a *samadh* of some of the boy's ancestors where the boy has to make his *salam* and some present of money. After this a start is made for the girl's village. During the journey well-to-do zamindars give a rupee to the *dharamsala* of each village passed through, and on the return of the procession these villages give a rupee each to the bridegroom as *salami*. This custom is however now dying out. When the procession arrives near the girl's village, some money is thrown over the boy's head to be picked up by beggars, sweepers, etc., who come together for this dole. The ceremony is known as *sot*. An intimation of the arrival is then sent to the girl's father who sends *sharbat* for the *barat* through his *mahra* who has to be paid some money. In cold weather tea is sometimes served instead of *sharbat*. At night the *lagis* of the girl's family come with some sugar; the priest of the family then puts a mark on the forehead of the boy and he and other *lagis* are given presents of money. The boy is then given some of the sugar and the rest is distributed to the members of the procession. This is a signal for the starting of the procession for the girl's house. On nearing the house fire-works are let off and then the ceremony of *milni* or meeting takes place. The boy's father embraces the girl's and the latter makes a present of money according to his means. Their respective *mirasis* recite their genealogies and are paid a rupee each. The maternal uncle of the boy and that of the girl then embrace each other in the same way. The procession then proceeds to the place set apart for them and the boy is sent to the girl's house.

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On reaching the door of the house the boy is first stopped by the *chaukidar* of the village who is given a rupee as an inducement to allow him to proceed. He is then met by the barber's wife with a lighted lamp in a sieve. She takes his measurements with a coloured thread and after taking her *lág* pours oil on the threshold and lets him into the house. Here the girl is sitting upon a blanket on which the boy is also made to sit. The barber's wife then places some cotton balls upon the girl's head and the boy takes them off. This is repeated seven times. This ceremony, the *pahndas* explain, is intended to mark the acceptance by the boy of the girl with all the seven defects inherent in her sex. These defects according to a *shabad* are—

(1) Ignorance.
(2) Avarice.
(3) Cunning.
(4) Anger.
(5) Falsehood.
(6) Perversity.
(7) Want of foresight.

The boy then opens the girl's closed fist with his little finger as a trial of strength. He is after this made to recite some *chhand* or *bhasha* verses learnt beforehand for the occasion. After these ceremonies are over the boy leaves the house and poins the marriage party.

On his return food is brought for the party. Before serving it, however, some food is sent for the girl along with five rupees and a handkerchief. The food and money are kept and the handkerchief is returned. A dish along with a rupee is also sent to each *dhiani* (a girl of the bridegroom's tribe married in the village). After this the members of the marriage party take their food and return to the place set apart for them. On their return the barber of the girl's family brings a tray containing a lighted lamp, a horse made of flour paste and some cups made of the same substance, the ceremony being known as *ghora bahera*.

Marriage rites among Hindus.

39. The *phera* ceremony takes place before sunrise in the courtyard of the girl's house under an awning consisting of four posts driven into the ground with a red cloth spread over them and some mango leaves tied to them. Two *khárás* (baskets) are placed under the awning, one for the boy and the other for the girl, and pieces of cloth are spread over them. The boy's father

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sits outside the awning on one side and the girl's father on the other. The boy appears first and is made to sit on one of the *kharas* with a piece of wood of the *ber* tree under his feet. Under the directions of the priest he first worships the nine *garahs* made of flour paste. The girl then appears dressed in a *chola* or gown. Her *chola* is tied with a piece of coloured thread to the boy's *dopatta* and both the boy and the girl are then made by the priest to recite some *mantras*. The girl's father then makes a gift of her by putting some water on the boy's hand. The sacred fire is then lit, into which the boy puts from time to time some *ghi* as the priest is reciting *mantras*. The boy and the girl then go round the fire four times, the girl leading in the first three turns and the boy in the fourth: each in turn strike a stone with their feet in indication, it is said, of their determination to be firm as a rock in their marriage vow. Rice is thrown into the fire during the perambulations. The boy and girl then resume their seats and seven lines of flour are made on the boards under their feet and wiped off with the knot with which their clothes are tied. After this the priests and the *lagis* are paid their dues. The girl goes into the interior of the house and the boy rejoins the marriage party.

During the day the *vari*, which consists of clothes, ornaments, etc., is exhibited by the boy's father to the assembled *biradari*. The girl's father then exhibits his *khat* or dowry for the girl. At the *khat* the boy and the girl are seated on a couch, and a formal gift of the girl and the dowry are made by the girl's father to the boy. Money is then given to the boy by the female relations of the girl as *tambol*. The *pandit* recites *mantras* and some rice is sprinkled over the *khat*. The girl then gets into a doolie, which is carried, while inside the village, by her male relations. Her departure from her parents' house is attended with the singing of some touching songs by the *mirasans* and there is much shedding of tears. Outside the village the doolie is made over to the *kahars*. During the progress of the procession through the village some money is thrown over the doolie by way of *sot*. The wife of the family barber accompanies the girl and looks to her wants during the journey and at the boy's house. On the house being reached the mother of the boy takes a cup of water and turns it round his head and drinks it in spite of his protests. Some oil is poured on the threshold and the boy and the girl enter the house. At night some young girls are made to dine with the bride in order to overcome her bashfulness and to induce her to eat. On the following day the ceremony of playing *gana* is performed. A vessel is filled with water mixed with some milk and the wife of

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the barber of the boy's family throws into it two rings, one *cowrie* and one rupee, and both the boy and the girl try to get hold of the rupee amid the cheers and taunts of the surrounding women. This is done seven times and the barber's wife takes care that at the seventh time at any rate the victory should rest with the boy.

Another ceremony performed after the arrival of the bride is *got kunala* which marks her introduction to her husband's *got*. This consists of eating of rice by the other married women of the *got* out of the same dish with her. Care is taken that no low-caste woman who has not been herself formally introduced into the *got* should partake of the dish.

On the day on which the marriage ceremony is performed at the girl's house a ceremony known as *lassi-pair* is performed at the boy's. The mother of the boy and the other women of the *biradari* who may be present apply *mahndi* to their hands and eat together boiled rice containing sugar and milk. Some water containing milk is then put into a vessel and every woman puts her feet and throws a pice into it. The pice are given to the barber's wife and the other *lagi* women are also given small presents of money.

Marriage rites among Muhammadans.

40. Muhammadans generally observe the same ceremonies as Hindus omitting those that savour of the Hindu religion. The following description is generally applicable to all Muhammadan tribes. The betrothal is performed by the father of the girl going to the boy's house and placing a rupee on his hand and by the father of the boy going to the girl's house and placing a rupee upon her's. In the latter case the father of the boy and the men and the women who accompany him are usually given some clothes by the girl's father. The boy's father distributes *patashas* to his relations at the betrothal. Sometime after the betrothal some clothes and ornaments are sent by the boy's father for the girl. This ceremony is known as *varna*.

The date of the marriage is fixed by letter or verbal message through a *lagi*. Soon after the fixing of the date the girl's father sends a turban, a few rupees and some *chhuaras* (dried dates) to the boy's house. The boy's father assembles his relations and in their presence the boy ties the turban and applies some saffron to it. The dried dates and money are then delivered to him. The *lagi* who brings these things is given a present of money and some clothes and ornaments are sent through him for the girl. On his return she puts on the clothes and some rice is cooked and eaten by the girls of the *biradari*.

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Five or seven days before the marriage the oil ceremony is performed in much the same way as among Hindus, and the women present are given some sugar. The *mahndi* ceremony is then performed a day before the marriage. *Mahndi* is applied to the boy's hands and the women who are present are also given some of it. The following day the *sehra* ceremony is performed, *tambols* are taken and the marriage procession starts for the girl's village. On reaching the village the marriage party puts up at some place set apart for this purpose. At night a start is made for the girl's house and on reaching it the ceremony of *milni* or meeting is performed in much the same way as among Hindus. The marriage party is then feasted and after this the *nikah* ceremony is performed according to the Muhammadan law.

During the performance of the *nikah* ceremony the boy and his father and some members of the marriage party assemble at some place near the girl's house. A *mullah* is called and three of the girl's male relations are sent to her—one to act as her agent and the other two to act as witnesses. They make the girl recite the *Kalma* and ask her whether she consents to become the wife of so and so. She replies in the affirmative or else an affirmative reply is presumed from her silence and then they come to the *mullah* and intimate her consent. The *mahr* is then fixed after some haggling between the girl's father and the boy's father. The zamindars here usually fix the traditional *mahr* of Rs. 32. The *mullah* then makes the boy recite the *Kalma* and asks him whether he accepts so and so as his wife in consideration of so much *mahr*. The reply is in the affirmative. The *khutba* of *nikah* is then read by the *mullah* and after this congratulations are offered to the fathers of both the boy and the girl. The *mullah* is paid a rupee.

In the morning the *khat* or dowry for the girl is exhibited before the assembled *biradari* and made over to the boy's father. The procession then starts back for the boy's house. Some zamindars feast their relations and friends after the return of the procession, but the custom is not general. The bride goes back to her father's house after a stay of a day or two. The ceremony of *got kunala* is also observed in some of the Muhammadan tribes.

Position of women.

41. It is often remarked that one of the surest tests of the prosperity of a country is the state of its women: their general household life in this district may be briefly described as follows:—

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Position of women.

Women are generally fairly well treated. The men on the whole do their full share of work : the women are better clothed than the men and are as liberally supplied with ornaments as the circumstances of their husbands permit. As a class, they have nothing to complain of and are perfectly satisfied with their own position.

There are some female schools in the district managed by private individuals or municipalities ; girls can there learn easy arithmetic and read Sanskrit or Gurmukhi books up to the Upper Primary standard, but they are as a rule denied education by the Hindus as they are forbidden to hear or learn the sacred Vedas.

Girls when they reach their teens are looked upon by their parents as a burden and are generally married before they are properly grown up. To die without leaving behind any male issue to perform the burial rites, and to offer up the periodical gifts at *sharadhs* and on other such occasions, is one of the most dreadful fates that can overtake a Hindu, and he seeks to avoid it by early marriage.

Women are very fond of jewels and ornaments. They wear *chaunk, phul, dauni, ticca, tawitri* on the head, *bugtis, mohrs*, or ducats, *hamel, kantha, malla* and *janjiri* on the neck, *churian, band, gokhru, paunchian* and *chhankangan* on the arms, *dandian, balian, bunde* and *jhumke* on the ears, and *tore, pazebs, bankan, karian, lacchche, mahndi* and *chhale* on the feet. Besides these there are numerous others which would require a separate volume to describe. The first question asked by female visitors in a marriage is not the proportionate fitness in age of the boy and the girl or their bodily health but the number of ornaments which the father of the bridegroom has brought for the bride.

In middle class families women cook the food, sweep the house and perform other household duties and must live in *purdah*, but the poor or low class women go about freely and do outdoor work as well.

The bridegroom, as a rule, never sees his bride till his marriage and even then he does not see her face. From the time of betrothal till marriage a young girl must live in the strictest seclusion. Whenever a man calls upon her parents, she is expected to retire to the inner apartments of the house.

Women on the whole are naturally superstitious, faithful to their husbands, devoted to their children and their *janam bhumi* or birthplace, but they too often regard their *sas* or mother-in-law as their natural enemy and are generally ignorant of their religion. Beyond the ordinary duties of household work, they

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have no amusements at all. Every house possesses a *charkah* or spinning-wheel, on which the women spin in their leisure time. Cotton is made into small reels called *punis*, and women of a *mohalla* or street often assemble together with their spinning-wheels: the *punis* are kept in a flat basket and arranged in rows termed *pir*. All women spin together—the party being called *tinjan*—and one woman of the *tinjan* distributes *punis* to every member of the *tinjan*. If one woman finishes her *punis* before the rest she will not be given other *punis* to spin until all the *tinjan* women have finished their respective *punis*. They often sing songs while busy in spinning the *punis* of the *pir*.

The re-marriage of widows (*karewa*) is regarded as improper by Hindus and in well-to-do families is seldom practised. Among the poorer classes necessity often compels a widow to seek another husband (especially a widower) for her support. Cases of *satti* are even now not unknown. A cup full of water mixed with *kesar* or *za'fran* is given to the unfortunate woman whose fate it is to die with her husband (*kesar* is thought to bring oblivion) before she ascends the funeral pyre. This sacrifice is supposed to secure for the widow eternal happiness and a meeting with her husband in the *swarg* or heaven of the next world.

Women often tattoo round spots on their cheeks and lower lips and colour their teeth and lips with *dandasa* or walnut-bark.

Polygamy.

42. Polygamy is recognised by Muhammadans up to the number of four wives, as allowed by Muhammadan law, but among the poorer classes monogamy is practically imposed by the expense involved in maintaining more than one wife.

A Hindu, as a rule, marries one wife only, but there is no restriction as to number. *Chadar-andazi*, or the marriage of a man with his deceased brother's widow, is the commonest form of polygamy among Hindus, and the marriage is considered as binding as one of the ordinary kind, the issue having an equal claim to the ancestral property. But this custom obtains only among the Hindu tribes recognising widow re-marriage: this practice is not permitted to widows among Brahmans, Khatris, Bedis, Sodhis, the higher classes of Hindu Rajputs and most Muhammadan Rajputs. That the feeling against widow re-marriage is weakening is shown by the fact that some Khatris, Bedis and Sodhis do not now consider such marriages to be unlawful.

Divorce.

43. The Muhammadan tribes of the district are guided by Muhammadan law in all matters connected with divorce. Among the Hindus the custom of divorce does not generally exist,

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Divorce.

but in certain tribes a wife can be repudiated for immorality or disobedience by the execution of a deed of release: these tribes are the Labanas of the Gurdaspur and Shakargarh Tahsils, the Hindu Jats of the Batala and Gurdaspur Tahsils, and the Sainis, Bhats, Lohars and Tarkhans of the Gurdaspur Tahsil: among these all except the Labanas and Sainis allow the woman so repudiated to be taken back by mutual consent. Among Hindus a wife can never claim release.

Language.

44. The language of the district is the Punjabi of the Central Punjab, classified by Sir George Grierson as "Standard Panjabi." The language of the hill tract which has been said in successive Census Reports to be Dogri is not Dogri as understood in the Kangra hills and in Jammu, but is in fact the ordinary Punjabi of the rest of the district, with the addition of a few words which have crept in from the language of the neighbouring hills. Thus, 'mikki' is generally used for 'mainun' ('to me'), 'same' is the equivalent of 'sath' (with) and the termination 'u,' such as 'bakru' for 'bakra,' a goat, 'kuttu' for 'kutta,' a dog, is commonly met with.

Races, tribes and castes—

45. The following general account of the Rajputs of the district is taken from the 1892 District Gazetteer:—

Rajputs.

"The hilly tract is peopled almost entirely by Thakkars or spurious Rajputs, the submontane is mainly Rajput, and the plains population is principally Jat. There are very few true Jai Karia Rajputs, as the Pathanias and Manhas, who might lay claim to this rank, have lost grade by turning personally to direct agriculture. Practically, all of these tribes come under the generic term of Salamias, and many of them hardly deserve the name of Rajput at all, and in Kangra would be called Rathis who are repudiated by the true blood Rajputs. The lowest clan of all are known as Ram Ramrias. Leaving the classification based on the method of solution adopted, and arranging the Rajputs by the traditional races of Surajbansi and Sombansi, we have the following results:—

Chandarbansi	*Surajbansi.*
Guleria.	*Jamwal.*
Pathania.	*Jasrotia.*
Samrial.	*Janglotia.*
Khokhar.	*Manhas.*
Kohal.	*Harchand.*
Bhatti.	*Jarral.*
Bhamrotra.	*Sin.*
Lamin.	*Indauria.*
Kakotra.	*Chibh.*
Naru.	Bagal.
Ladit.	Tangral.
Ghandar.	Saroch.
Makhotra.*	Thakkar.
Rakwal.	Thakial.
Chohan.	Bhadiar.
Madar.	Salehria.*

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Rajputs.

Chandarbansi.	*Surajbansi.*
Kanauch.	Gohotra.
Awan.	Malhotra.*
Samanch.	Manj.*
Jhanjua.	Manjrial.
Dhamdial.	Rial.
Balim.	Jhaggi.*
	Sanauria.
	Mahotra.
	Katal.
	Lalotra.

Those shown in italics call themselves Jaikarias, but except the first two Chandarbansi, and the first three, Surajbansi, the other clans have really lost their claim to the salutation of Jaideya in this district. The clans against whose names an asterisk has been placed are all locally known as "Kahri," or those who only take from or give wives to a particular clan, and the others as "Dohri, or those who take and give wives in the same clan. The former class are considered superior. The five true Jaikaria classes give and take in marriage amongst themselves, and take from the other Jaikarias and Kahri clans. The Dohri clans intermarry, except with their own clan or that of their mothers and paternal or maternal grandfathers. Amongst the inferior Jaikaria and Kahri clans there is a regular order of precedence, and they take from a lower and give to a higher clan. Thus the Tangrals take from the Katals, Lalotras and Kohals, and give to the Jarrals, Salehrias and Indaurias ; the Kohals take from the Katals and hill Thakkars, and give to the Tangrals, and the Salehrias give to the Manhas and take from the Gahotras, Katals and Lalotras. A tendency is, however, observable amongst them to level away these distinctions to some extent, and if this extends it will be an excellent thing. The Thakkars in the hills occupy the very lowest rung of the ladder, and so have not been shown in the list. They have innumerable sub-divisions amongst themselves, and practise widow remarriage. The custom of *karewa* is also not uncommon amongst most of the Dohri clans. This classification into *gots* or clans is not only interesting as an historical and ethnological study, but is also of considerable importance from the baser points of view of the revenue assessing officer and vital statistician. A curious feature of the race is that the lower classes appear to be dying out. Their estates are undermanned, so far as the proprietors go, and badly farmed : all sorts of reasons based on poverty of soil, climate, and general impoverishment, are adduced by the people themselves to explain this, but, in my opinion, none of these are sufficient to entirely account for the results noticed. The first two affect all tribes alike ; and yet amongst the higher classes there is a general tendency to increase ; while, where the Rajputs have embraced Islam, they are just as numerous as any other race. The last result probably lends the required clue. The marriage law amongst the Hindu Rajput ordinarily requires that a higher clan should not give its daughters in marriage to a lower, though they may take from the lower class. The lower, therefore, they descend the tribal ladder, the more difficult it is for a man to obtain a suitable wife : and the climax is reached in the case of the Thakkars who are here at the bottom of the scale, and amongst whom the deterioration of race and generally dwindling tendency are most marked. The daughters leave the clan, and the men must either remain unmarried or take their brides from sub-tribes which, though not regarded as consanguineous, have so frequently intermarried during past centuries as to ruin the physical prospects of the progeny. On embracing Islam the strict rules of the marriage law are much relaxed ; and though outside marriages are preferred, there is nothing to prevent general marriages even within the clan.

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Rajputs.

The conversion to Islam is said to have occurred at a very early period during the Mughal rule, or even before that; and though the converts are scattered pretty widely over the whole tract, and in many cases owners of the same stock in the same village belong to different creeds, it may generally be stated that the Hindus predominate in the hills and upper submontane, and the Muhammadans in the lower submontane and commencement of the plains. As a whole they are very indifferent cultivators, but the pressure of population on the soil has in cases forced them to habits of industry. In personal character they are proud of their descent and of the fact that they were the original owners of the country, and so are loth to sell, though only too ready to encumber their holdings. Simple and reasonably truthful, they are indolent and extravagant, and worst of all extremely querulous, and are probably the least satisfied with British rule of any class in this district though the Dogra regiments and the native cavalry obtain a fair number of recruits from amongst the more promising young men. The increase in the physical standard required for recruits and the deterioration of physique noticed above are tending to cut off this avenue of employemnt, so that the prospects of this race are not brilliant."

Further remarks on Rajputs.

46. The account of the Hindu Rajputs as given in the extract above requires amendment in certain points. A number of the clans enumerated in the list are not found in the district and no information about them is forthcoming. Of those shewn as Jaikarias the Jarrals and Sins are now said to be Salamias only and not Jaikarias, while the Jarrals, Sins, Chibhs, Bagals, Tangrals, Thakkars, Thakials, Salehrias, Gahotras, Malotras and Jhaggis are Chandarbansi and not Surajbansi Rajputs. Of the Chandarbansi only the Pathanias and Chibhs are Jaikarias. The terms "Kahri" and "Dohri" are apparently merely local designations, of which the definition in the last Gazetteer might be made a little clearer. The "Kahris" are those who do not take wives from any of the clans to which they give them; the practice of Dohris, on the contrary, is to take wives from the same clan as that to which they give them. They are not of course restricted to this one clan, however, either in giving or taking wives. Thus, for instance, the Jasrotias, who are Dohris, give wives to the Pathanias and also take wives from them: they also give to the Bhadwals and Hamtals, but do not take from them: similarly they take from the Sahlarias, Jhaggis, etc., but do not give to them. The Kahris, on the other hand, only take from a lower and give to a higher clan. The Salehrias have for many generations abandoned the practice of taking wives from the Gahotras who are regarded as in some sort 'bhaibands' of the Salehrias since they both give to and take from the same clans. *Karewa* limited to re-marriage inside the clan to which the deceased husband belongs, is practised by the Lamin, Rakwal, Chohan, Bagal, Saroch, Thakkar, Salehria, Gahotra, Malhotra, Jhaggi, Katal and Lalotra clans: no Jaikarias admit *karewa*.

The fact is that many of the ancient customs of the Rajputs

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are in a state of solution and practice is not in accord with precept among many clans and even among different members of the same clan. The Rajput Sabha holds annual meetings, usually in Jammu, which is the home of most of the best clans, and the introduction of changes in custom is discussed. The authority of the Sabha to sanction changes in custom, however, is not universally admitted and in any case it is difficult to enforce a new custom in place of one which has continued from ancient times. A case in point is the recent decision that Jaikarias shall no longer be addressed as 'Mian ji' but as 'Thakur ji,' the reason for the change being that 'Mian' is a Muhammadan term and dates from the Mughal domination. Connected with this is the new custom of saluting Jaikarias with the word 'Jai unkar' instead of 'Jaideya.' But the natural conservatism of the Rajputs is likely to prevent these changes from winning universal observance during the present generation.

Jats.

47. The Jats are also partly Hindu, partly Muhammadan, and partly Sikh. The last are to be found chiefly in Batala and to the south of Gurdaspur and Shakargarh. Sikh Jat villages are, as a rule, the strongest, most active, and prosperous, and the similar Muhammadan communities are the most involved and indolent.

The chief Jat *gots* in the different tahsils are as under :—

Gurdaspur ..	Kahlon, Sidhu, Ghumman, Goraya, Gil, Randhawa, Dhariwal.
Batala ..	Randhawa, Sidhu, Kahlon, Riar, Gil, Sarai, Goraya.
Shakargarh ..	Kahlon, Malli, Goraya, Bains.

The Randhawas far exceed any other *got* in Batala ; in Gurdaspur they are found mainly in the Bangar. They are chiefly Sikhs and have a great reputation for drink and illicit distillation, in this respect the Kahlons who are largely found in the Ravi valley are not far, if at all behind. The Riars are almost confined to the fertile Bangar tract called the Riarki in the east of Batala and the adjoining villages in Gurdaspur Tahsil. The Mallis are a strong body of cultivators in the richest part of the Shakargarh Darp, but in most cases their holdings have become deplorably sub-divided and there is greater pressure on the soil than anywhere in the district.

Here, as elsewhere, the Jats have preserved their racial characteristics. They are brave, fairly open, industrious, frugal in their personal expenditure and hardy, but are also quarrelsome, litigious, not averse to violent crime, and profligate in their ex-

penditure on ceremonial occasions. As revenue-payers they are the backbone of the district, which is a great recruiting ground for the Jat regiments of the native army. It is somewhat curious and interesting to observe how closely the general boundary between the Rajput and Jat country follows that between the submontane and plains zones; the inferior race, so far as physique and energy are concerned, being confined to the tract where cultivation is carried on with less labour and more uncertain returns, while the hardier Jats have successfully wrestled with the greater natural obstacles to agricultural development with far more satisfactory and certain results.

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Jats.

Minor tribes.

48. The more important minor tribes are the Muhammadan Gujars of the northern part of Shakargarh Tahsil and the Beas Bet, the Arains of Kalanaur and Batala, the Pathans of the Shakargarh Darp and of the Ravi Bet in this tahsil and Gurdaspur, the Sainis of the Paintla in Shakargarh and some scattered villages of Brahmans throughout the district. The Pathans and Brahmans are of course very poor farmers, while the Arains and Sainis are industrious and frugal in the extreme. They are exceedingly prolific, and the minute sub-division of holdings amongst them lends itself to the successful adoption of the system of *petite culture*, to which they are most inclined. The Gujars are now ordinary agriculturists, and in this district are fairly industrious and prosperous. The tradition among the Bharrari Gujars is that they were originally Hindus of the country round Delhi but that in the time of the Muhammadan kings they were converted to Islam and settled in the Bharrari which was then a thickly-wooded jungle.

Kakkezais.

49. The Kakkezais have their head-quarters at Dharmkot Randhawa in the Batala Tahsil, but there are several villages owned by them in the south-east of Gurdaspur. They are tricky people, and though their natural bent is towards trade they are not bad cultivators; they are said to indulge in money-lending and are not popular with their neighbours. They were greatly indignant at Sir Denzil Ibbetson's tracing them back to the Kalals, but they have not succeeded in substantiating their claim to be Pathans. Of this caste Rai Bahadur Pandit Hari Kishen Kaul writes as follows on page 460 of the Census Report of 1911:—

"Up till 1901, Kakkezais were included in Kalals. In the Census of 1901 they were shown as a separate caste, but in volume II of Rose's Glossary of Castes, recently printed, he says:—

"'They claim to be by descent Afghans of Seistan, sprung from Kakka, a son of Karn, and the nucleus of the class may well be a pure Pathan class. But

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the sections of the Kakkezais include such names as Bhursi, Malak, Kethale Kasoliya, Sheikh, Vansare and Nakhasria, and in Sialkot Bale, Bhagarath, Chandi, Handa, Khoria, Wadrath, and Wanjotra, which hardly point to an Afghan origin and lend colour to the theory that the Kakkezais were, like the Khojas, Hindus converted at an early period of the Muhammadan invasions and affiliated to a Pathan class.'

"Mr. Ibbetson in paragraph 648 of his Census Report of 1881 writes :—

"'The caste (Kalal) was thus raised in importance, many of its members abandoned their hereditary occupation (of distilling liquor), and its Musalman section also grew ashamed of the social stigma conveyed by the confession of Kalal origin. It accordingly fabricated a story of Pathan origin, and adding to the first letter of the caste name the Pathan tribal termination, called itself Kakkezai. The name was at first only used by the more wealthy members of the caste; but its use is spreading and the cultivating owners of a village in Gujrat entered themselves as Kalal in the first and as Kakkezai in the second settlement. The well-known Sheikhs of Hoshiarpur are Kalals, who, while claiming Pathan origin, call themselves Sheikhs and forbid widow marriage.'

"In view of representations made by the Kakkezai community I have examined some of the Settlement Records of the Lahore District dating as far back as 1855 relating to landowners of the caste and find that they bear out the late Sir Denzil Ibbetson's remarks. Moreover the description of the Kakkezais given at page 560 of Tarikh-i-Makhzani-Punjab, by Mufti Ghulam Sarwar Kureshi (edition 1877) supports the same view. Much therefore as I sympathise with their natural desire to elevate their status, I am afraid it is difficult to controvert facts, and in face of the entries in some of Settlement Records of the Lahore District, above alluded to, it is not possible to say that the late Sir Denzil (then Mr.) Ibbetson's remarks were without foundation."

Labanas, Changs and Harnis.

50. The Labanas of the district are found chiefly in the Gurdaspur Tahsil and are now entirely engaged in agriculture; generally speaking they are hardy and industrious and have increased their stake in the land.

The Changs own a few villages in Pathankot Tahsil and, while fair cultivators only, are extraordinarily quarrelsome and litigious. They are allied to the Giraths of Kangra.

The Harnis, who have several villages in Gurdaspur Tahsil, mostly in a cluster to the north of the Bangar, belong to a criminal tribe of that name, but these have now taken to agriculture for a number of generations and claim to be entirely reformed characters. This is to a great extent true, but their neighbours have not yet overcome their suspicions of the thieving proclivities of these people.

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51. There are in the district 19 darbaris, 7 of whom are Provincial. The history of eleven of the leading families, of whom the present heads are noted in margin, is given at pages 1—46 of the 1911 edition of "Chiefs and Families of Note in the Punjab." In addition to those considered worthy of a place in that compilation there are several leading men whose family or services are such that their names deserve to be recorded. In Batala, Thakar Harkishan Singh of Kishankot and Thakar Mahan Chand, who has served on the Legislative Council of the Lieutenant-Governor, are grandsons of Raja Sir Sahib Dial, K. C. S. I. Sardar Kishan Singh, Zaildar of Bham, has done good work not only as an Honorary Magistrate but in helping the administration generally; he is now invested with 2nd class powers and has just received the title of Sardar Sahib. Sardar Bahadur Dial Singh, Man of Aliwal Man is a Deputy Collector in the Canal Department. Mian Alim Khan of Kala Afghanan has done invaluable work in assisting the Co-operative Credit Societies movement. Mian Ghulam Farid of Batala did useful work as an Extra Assistant Commissioner and is now retired: he has the title of Khan Bahadur. Mian Nazir Mohi-ud-din is a Sayad and head of a religious institution in Batala. Sardar Narain Singh of Singhpura, who now lives on a purchased estate called Nawanpind a few miles from Gurdaspur, is also a Sardar Sahib. His son Kishan Singh is a Zaildar and a man of influence, as also is Chaudhri Alim Khan of Chachriala. Bedi Shiv Bakhsh Singh is a leading man in Dera Nanak. In Gurdaspur, Mehr Amir Ullah of Kalanaur, Lala Devi Dial of Kahnuwan and Mahant Basheshar Nath of Gurdaspur are Honorary Magistrates. The last named is a descendant of Mahant Guriaji, from whom Gurdaspur takes its name. Mirza Niaz Beg is the head of the Mughal family of Hakimpur near Kalanaur and has served in the Canal Department. In Shakargarh, Diwan Safa Chand is the leading man of the Datt Brahmans of Kanjrur; Wardi Major Kahror Singh of Sukho Chak, whence come numerous recruits for the army, is now a Sub-Registrar; Chaudhri Hashmat Ali of Chajwal and Chaudhri Kesar Singh of Singowal are Honorary Magistrates, the former with 2nd class powers; both are valuable men. The sons of S. Jamiat Rai, an old servant of Maharaja Dhalip Singh, still live at Mallah, but the family is in

1. Raja Sant Singh of Akhrota.
2. Sardar Gopal Singh of Bhagowala.
3. Sardar Hari Singh of Ranghar Nangal.
4. Rai Sheo Singh, Bhandari.
5. Sardar Hari Singh of Talwandi Lal Singh.
6. Sardar Sarup Singh of Fatehgarh.
7. Sardar Bhagwan Singh, Panjhatha.
8. Sardar Moti Singh of Chashma.
9. Sardar Harnam Singh, Bhaga.
10. Mirza Sultan Ahmad of Kadian.
11. Sardar Amrik Singh of Khunda.

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Leading men and families.

a very depressed and impoverished condition. Sardar Wazir Singh and Mewa Singh of Jhun Man Singh are descendants of Sardar Man Singh whose death at Trimmu has been noticed in the account of the Mutiny in paragraph 24. In Pathankot the Tangral Rajput Chaudhris of Kathlaur are a notable family and own 15 villages, mostly in the Chak Andhar: one of them, Kharak Singh, is an Honorary Magistrate with 2nd class powers: Chaudhri Mehr Singh is the son of Sucheta and grandson of Phinu, the well-known Kotwal of the hill circle; he also is an Honorary Magistrate.

There are numerous soldiers who have attained to commissioned rank in the Native Army, but the list would be too long to give here; probably the oldest in the district is the fine old veteran Subedar Miran Bakhsh of Dera Nanak.*

Tribes gazetted under the Land Alienation Act.

52. The following tribes have been gazetted under the Land Alienation Act:—

Arain, Dogar, Gujar, Jat, Moghul, Pathan, Rajput, Saini, Sayad (in 1904), Labana (in 1906), Chang (in 1909) and Brahmans of the Tarnaich clan in Pathankot Tahsil, of the Barsotra clan in Shakargarh Tahsil and of the Datt clan in the whole district (in 1913). These last have been gazetted as separate groups: the Tarnaich Brahmans occupy a compact block of 14 villages in the Pathanti, and the Barsotras 6 villages in the north-west corner of Shakargarh. The Datts have 17 villages on the western border near Kanjrur in Shakargarh and are a branch of the Muhial Brahmans of the Rawalpindi and Jhelum Districts: numbers take Government service, especially in the army.

Descent of Jagirs Act.

53. Of the 14 jagirs upon which action could be taken under Descent of Jagirs Act, 6 have already been notified: of these a rule of integral descent had always prevailed in one case: in two cases such descent was prescribed in the terms of grant and in the remaining three the jagirdars accepted the application of the rule of primogeniture for the future. The most important jagirs—those of Sardar Gopal Singh of Bhagowala, Raja Sant Singh of Akhrota, Thakar Harkishen Singh of Kishenkot and Sodhi Kishen Singh of Jhabkara have been notified, and the only important grant still remaining is that of Sardars Bishan Singh and Sundar Singh who are residents of Amritsar, and hold a fixed grant in the Batala Tahsil of this district.

Religions
Muhammadan sects.

54. Almost all the Muhammadans of the district belong to the *Hanafi* sect of the *Sunnis*. The *Shias* are to be found in considerable strength only in Batala. The same is the case

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*He died while this Gazetteer was in the Press.

with the *Ahl-i-Hadis*, one of whose principal *maulvis*, Muhammad Husain, resides in that town. The new sect of *Ahl-i-Quran* is also represented by a few persons. CHAP. I-C. Population.

Muhammadan sects.

The principal difference between *Shias* and *Sunnis* consists in the former regarding Ali as the only rightful successor of the prophet Muhammad and the three *Khalifas* who preceded him as aggressors. This difference has led to the adoption of different interpretations of some of the verses of the Koran and to a difference of opinion regarding the authenticity and interpretation of some of the *Hadises* or traditions of the prophet. The *Hanafi* follow Imam Abu Hanifa in his opinions on points of Muhammadan law not covered by the Koran or traditions. The *Ahl-i-Hadis* refuse to be bound by the opinions of any particular Imam. The *Ahl-i-Quran* believe that the Koran is complete in itself and the search after traditions is unnecessary and misleading. The birth-place of Mirza Ghulam Ahmad of Qadian, the founder of the *Ahmadiya* sect, is in this district, but many of his followers here are those who have come from other districts and settled in Qadian. The following extract (paragraph 240) from the 1911 Census Report deals with the *Ahmadiya* sect which, having originated in this district, calls for some special notice.

The Ahmadiyas.

55. The *Ahmadiya* sect was founded by Mirza Ghulam Ahmad of Qadian (in the Batala Tahsil of the Gurdaspur District). The Mirza was born in 1839 and wrote in 1880, *Burhan-i-Ahmadiya*, his masterpiece, in which he claims to be a recipient of Divine revelation. A brief description of the sect was given by Mr. Rose.* "Beginning as a Maulvi," says he, 'with a special mission to the sweepers,† the Mirza eventually advanced claim to be the Mahdi or Messiah expected by Muhammadans and Christians alike. The sect, however, emphatically repudiates the doctrine that the Mahdi of Islam will be a warrior and relies on the 'Sahih Bokhari,' the most authentic of the traditions, which says he shall wage no wars, but discontinue war for the sake of religion. In his voluminous writings, the Mirza has combated the doctrine of *Jihad* and the sect is thus opposed to the extreme section of the Ahl-i-Hadis".

The following quotation from the Imperial Gazetteer‡ shows another aspect of the movement :—

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* Punjab Census Report, 1901, page 143.

† This appears to be incorrect. It was Mirza Ghulam Ahmad's brother who was the *Pir* of sweepers. The movement is said to have died with him.

‡ Volume X, page 438, edition 1907.

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Population
The Ahmadiyas.

"The widest development of recent sectarianism in Islam is furnished by the Ahmadiya sect. The Quran is to him (its leader) the repository of all knowledge. The Resurrection is at hand. While discouraging religious war, he is said to preach strongly against Christianity, Hinduism, the Shiah doctrines and the movement in favour of English education. The last observation does not appear to be correct, considering that some of the prominent Ahmadis are graduates and send their sons to colleges.

The founder claimed to be the promised Mahdi and Messiah of the Muslims, Messiah of the Christians, and Avatar* of the Hindus, and one of his adherents, M. Muhammad Ali, M.A., LL.B., proves from this triple claim the universality of the Ahmadiya Mission.† The Reverend Doctor Griswold's pamphlet on Mirza Ghulam Ahmad, the Mahdi Messiah (1902), discusses the claims from the Christian point of view. Among the Muhammadans the pretensions are admitted by only the adherents of the faith, and it goes without saying that the claim to being an Avatar is considered preposterous by the Hindus. Although the first volume of the Burhan-i-Ahmadiya was published in 1880 and the book was completed in 1884, the Ahmadiya movement did not come into existence till 1889, in view of the strong opposition raised by the Maulvis. The Mirza wrote three books, *Fateh Islam*, *Tauzih-i-Maram* and *Izala-i-Auham*, to clear his position, though without success. His professions were characterised by a strong element of prophecies and the fulfilment of those about the violent death of his bitter opponent Lekh Ram, the Arya Musafir, and the end of Abdulla Atham, a Christian (which is alleged to have been delayed because he had adopted the faith of the new Prophet before the expiry of the time allowed, but came on because he went back to Christianity), strengthened the hands of the founder of the sect. It is mentioned that Jesus Christ never died on the Cross, but escaped to India where he died in Kashmir. The tomb of Yus Asaf at Srinagar was identified by the Prophet of Kadian as the place where Jesus Christ was buried.

Males ...	...	10,116
Females ...	...	8,579
Total	...	18,695

The number of Ahmadis now returned is given in the margin. The total strength of the sect in 1891 or 1901 is not known, but Mr. Rose gave the number of males over 15 as 1,113 and considered his return to be a complete one. The proportion of Muhammadan males over 15 to the total Muhammadan population of 1901 was 1 : 3 : 1 The total strength of Ahmadis in that year may, by analogy, be estimated at 3,450. In the last ten years, therefore, the number of adherents of the faith has multiplied more than five times. One great stimulus for conversion has been the assertion of the founder that all those owing allegiance to him would escape the scourge of plague. But after a certain period of immunity, the Ahmadis began to succumb to the disease like others and the faith in the efficacy of the prophet's declaration was somewhat shaken. Mirza Ghulam Ahmad died on the 26th May 1908, and was succeeded in the leadership by his chief colleague and adviser Maulvi Nur Din,‡ who is a great Arabic scholar and an eminent physician. His successful treatment of patients attracts a large number of sufferers from all parts of the province and brings them under his influence. In spite of the opposition to the doctrines of this school, it is somewhat remarkable that it embraces men of great intelligence and resource. The sect appears to be in full vigour and has shown no sign of decadence."

* Nishkalank or Kalki.

† "Ahmad, the promised Messiah," by Muhammad Ali, M.A., LL.B., page 2.

‡ Since dead.

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Hinduism.

56. The Hindus may be divided into those belonging to the orthodox faith, Sanatan Dharm, and those following the tenets of the Arya Samaj. There are not many of the latter class in this district, and those that are are to be found chiefly in towns. Their distinguishing feature is their rejection of idol-worship. Some endeavour was recently made by a prominent member of the Arya Samaj who belongs to this district to bring back some of the untouchable classes, Dumnas, &c., into the pale of Hinduism: but much success has not so far been achieved. Some Dumnas have begun to call themselves *Mahashas;* but the people do not yet generally recognise them as Hindus. The Hindus of the orthodox faith worship stones representing Shibji and the images of Krishna, Ramchandra, Bhairon, Hanuman, &c. There is no marked division of them into sects.

Sikhism.

57. Most of the Sikhs here are those known as the Sikhs of Guru Gobind Singh. The number of *Sahjdharis*, who believe in the Granth Sahib but do not wear the *kes* or abstain from smoking, is comparatively small. There is really no idol-worship among Sikhs, but many of them have *parohits* and the ceremonies they observe on the occasions of marriages, &c., are those of the Hindus and savour of idol-worship.

Saints.

58. Among the people of all religions, saints and men of sanctity appropriate much of their religious devotion. The Muhammadans have their *Pirs*, the Hindus their *Parohits* and *Sadhus* and the Sikhs their Gurus, and to these offerings of money or grain are periodically made. There are several shrines which attract large numbers of pilgrims. The Muhammadan saint known as *Sakhi Sarwar* is held sacred by many men of all religions and his shrine at Dharmkot is visited by a large number of men from this district. Owing to the new reforming influences, however, the Hindus and the Sikhs are generally losing faith in the saint and in several villages the grants of land that had been in his name are being resumed. The *samadh* of Baba Nanak, the founder of the Sikh religion, is situated at Kartarpur in the Shakargarh Tahsil of this district, and that of Namdeo, the *Chhimba* saint at Ghuman in the Batala Tahsil. A brief account of Namdeo will be found at page 122 of the Census Report of 1911.

Superstitions.

59. The people, especially the Hindus, who place much reliance on astrology, are exceedingly superstitious, and there are countless beliefs and observances for which no reason can be assigned. Some days are thought to be more lucky than the rest—as, for instance, a zamindar would not commence ploughing on Tuesday, Thursday or Saturday; on the other hand, Saturday

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and Tuesday are said to be the luckiest to begin litigation. The following days are thought to be lucky and unlucky for starting a journey :—

Direction.	Unlucky.	Lucky.
North	Tuesday and Wednesday.	Monday and Friday.
South	Thursday ..	Wednesday.
East	Monday and Saturday.	Sunday and Tuesday.
West	Sunday and Thursday	Monday and Saturday.

On a journey it is lucky to meet the following :—

A sweeper, a dog, a woman with a child, a cow, a horseman, some one carrying water or a vessel of milk, curds, *ghi*, vegetables, flowers, sweets, or sugar.

On the other hand, the following are unlucky to meet :—

A Brahman, a Sayad, a Mullah, a cat, a goat, a donkey, a snake, a widow, anyone weeping, a man with a bare head, somebody smoking or with a fire or with a broken vessel or an empty pitcher. It is a most unfortunate omen to heara man sneezing when starting on a journey or when beginning some work.

Almost all zamindars including the orthodox Muhammadans believe in spirits. Young men dying childless and those who die dissatisfied are supposed to haunt the villages. Many precautions are taken to keep them off the heaps of grain on the threshing-floors. Muhammadans bury in the heap a paper bearing the name of *Allah* written by some *kazi* or *mullah*, while Hindus keep in it some iron implements, generally a *ramba* or a *datri*. Men who clean the grain, at the time of *mehra pherna*, are never bareheaded and as much as possible they avoid speaking while at work. No woman or a child or a man wearing shoes is allowed to come near. Fuel cakes are burnt and are put in an earthen vessel to keep off evil spirits.

Young children are not allowed to remain alone in the house or to go out alone in the fields after dark or to go out in dust-storms or under shady trees for fear of malignant spirits. At

night graveyards are avoided by all. If a man happens to pass a night in a *khangah* or in the compound of a shrine he will sleep nowhere but on the ground.

Some days before and after marriage an iron knife or similar article is kept both by the bride and the bridegroom: at child-birth the woman keeps some iron implement at her pillow to ward off evil spirits.

A turned earthen vessel coloured black is suspended in front of a *pucca* house which is being built.

Sowing is said to be unlucky during the first 15 days of Asauj, called the *sharadh* days. Generally no well is worked on the *Sankrant* day.

Dread of the evil eye (*nazar bad*) is general. If a man happens to eat something in the presence of a man said to possess the evil eye, he is said to get indigestion. To remove its effect a little of the earth trodden by the man possessing the evil eye is collected and burnt at some cross-ways. Tiger's claws or amulets are generally hung on the necks of children for protection from the evil eye.

A woman will not mention her husband's name or that of the elders of her husband. A man and his sister's son will not sit together during a thunder-storm. From the precincts of a shrine or *mandir* nobody but a *sadhu* or *fakir* would dare to cut down a tree or even to take away fallen wood.

If a Hindu should accidentally kill a cat or a cow he must go to the Ganges to purify himself.

The following are considered to be very unlucky:—

For a mare or a donkey to drop a foal in *Sawan*, for a cow to calve in *Bhadon* or a buffalo in *Magh*. In a household where it happens, if a man can afford it, he will give it to a *Brahman* or *Mullah*, if not, he will sell it, but in no case will he care to keep it. A mare that foals in the day-time is considered to be unlucky.

Hindus will not inhabit a newly-built house without previously feasting the *Brahmans*, &c.; this custom is termed *chath*.

A child born in *Katik* or at noon is unlucky among the Hindus: child-birth occurring on the *Amawas* is said to be dangerous to the father, while one occurring on the 14th of the lunar month *i.e.*, on *Chaturdashi*, is equally so to the mother. A child born after the birth of two children of the other sex is called a *trikhal*, and is said to bring misfortune to the parent of the opposite sex,

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but the evil may be avoided by certain elaborate ceremonies for which payment has to be made to a priest.

Hindus think it unlucky to marry in the months of *Chet*, *Katik* and *Poh* and Muhammadans will not marry in the months of *Ramzan* and *Muharram*.

Tombs of holy men and *Khangahs* are greatly respected. If a man much desires anything he makes a *mannat* (vow) to present something as *nazar* after the fulfilment of the desire. The Mahant of Lehl near Dhariwal makes much profit by giving amulets, &c., to women desirous of getting male offspring.

Various charms are thought to be effective for different ills. A person suffering from snake-bite is taken to some holy man who mutters incantations, taking some iron implement in his hand and blowing seven times towards the parts bitten. Sometimes persons bitten are taken to a *Khangah* of the well-known *Gugapir*, the place being said to be specially efficacious in cases of snake-bite. *Majawars* of these *Khangahs* adopt different cures, some of them give the man leaves of trees on the shrine to eat, others sprinkle holy water on the part effected. For headache and neuralgia some sort of charm is written on a piece of paper generally by a *Pundit* or a *Mullah*: this paper is folded and is then hung over the part affected. *Jhinwars* also are said to be able to cure these complaints. In front of a man suffering from toothache, the person supposed to cure it sits with an iron nail in his right hand: he then reads some *kalam* and drives the nail into the ground. Many sorts of female complaints, generally attended by hysteria, are thought to be caused by some evil spirit. Certain holy men are supposed to be able to exorcise such demons, the cure usually taking the form of readings from holy books and elaborate ceremonies, the woman meanwhile shutting her eyes and shaking her head violently from side to side.

Members of certain families have a reputation for curing boils by spitting on them. The sufferer usually gives them a piece of coloured thread or salt. There is a *Khangah* near Sadhu Chak in Gurdaspur Tahsil where boils are supposed to be cured by bathing. An amulet, which is strung on a coloured piece of thread knotted 5 or 7 times, is tied to the neck of a patient suffering from fever some 2 or 3 hours before the attack. For fever also a charm will be written on a pipal leaf, which the patient keeps on licking till the attack is past. Another cure for fever is to have the name of *Allah* written on the patient's nail, and he keeps his eyes fixed on it until he feels better. A coloured thread tied by the patient at the root of an *Ak* tree is also said to be efficacious in fevers.

The *tuna* is a well-known cure for cattle-disease. A string is stretched across the entrance to the village and on it are hung small saucers of baked clay and wooden pegs, pieces of cloth, etc., on which the name of *Allah* and charms have been written by some holy man. The cattle passing under this string are supposed to receive benefit.

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The hill-people believe that the character of the monsoon can be forecasted from the number of kittens born in a litter during the preceding cold weather; thus if the usual number is four or over the rains will be ample; if two, it will rain for two months only: if one, then the monsoon will be a total failure. There is somewhat more likelihood in the belief, which prevails in the same tract, that if the 'tatiri' or common plover, which haunts the beds and sides of *nalas*, builds its nest close down by the stream, the monsoon will be a poor one, but that if it builds high up above the stream then the rains will be good.

Ecclesiastical administration.

60. Excluding Mission buildings there are five churches, which are Government buildings, in the district, one each situated at Gurdaspur, Madhopur, Bakloh, Dalhousie and Balun. All these are in the Lahore Diocese. The two former are occasionally visited by the Chaplain of Amritsar during the cold weather. In summer there are resident Chaplains at Dalhousie and Balun, the latter of whom officiates at intervals at Bakloh. The first entry in the Baptismal Register of Christ Church, Gurdaspur, which was built in 1862 records the birth, in 1870, of a daughter to Mrs. Flora Annie Steel, the well-known writer on Indian subjects.

Church Missionary Society, Batala.

61. The Church Missionary Society occupies the Batala Tahsil as a Mission field. The head-quarters of the Mission are at Batala. The Mission staff consists of one European (the Reverend R. Force Jones) and one Indian clergyman with several catechists and teachers. The number of Christians in connection with the Church of England in this tahsil is about 1,700, the majority of whom are from the depressed classes. Batala is also occupied by the Church of England Zenana Society. Zenana work was commenced in 1876 by Miss Tucker (A. L. O. E.). The present staff consists of Miss Sherwood, Miss Mathews, Miss King and Miss Abdulla. The three former visit the women in Batala and in the villages of the tahsil. Miss Abdulla is in charge of the Zenana Mission Hospital. The educational work of the Mission is noted below.

The Baring High School, which is attached to the Batala Mission, was established by the Revd. F. H. Baring in 1878. The

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school is intended for the sons of better class Christians, and draws students from all parts of the Punjab and even beyond. The main building of the school was formerly a palace built by Maharaja Sher Singh, and is now rented from Government on a long lease of 99 years. The educational staff at present consists of a European Principal (the Revd. A. C. Clarke), a European warden (B. C. Corfield, Esquire) and eight Assistant Masters. The number of pupils is about 60 as against 47 in 1891. There is also another High School in Batala itself in connection with the Mission; this is the A. L. O. E. under the management of the Revd. R. Force Jones: it has a staff of over 20 masters and about 550 pupils and a hostel with 80 boys attached. At Fatehgarh there is an Anglo-Vernacular middle school and there are primary schools in several villages. They contain altogether, including the High School in Batala, about 900 pupils—an increase of over 550 since 1891. The Church of England Zenana Society has two girls' schools in Batala. The number of pupils is 120, as against 69 in 1891.

The American United Presbyterian Mission.

62. The American United Presbyterian Mission occupies the Pathankot, Gurdaspur and Shakargarh Tahsils.

The Revd. Dr. A. Gordon first worked Pathankot and Gurdaspur together, starting in 1876: in 1882 he took over Madhopur from the Church Missionary Society and lived there: he retired in 1885 and after ten years' interval, during which the Revd. T. E. Holliday built the Upper Mission House at Pathankot in 1896, was succeeded by his son the Revd. D. R. Gordon, who is still working for the Mission. He held charge of Gurdaspur and Pathankot till 1898, when Pathankot became a separate charge, which it still remains: between then and 1906 a ladies' house and girls' school were built by the Revd. Dr. J. S. Barr and a church was completed in 1908. A small boys' school taken over in 1882 from the Church Mission Society is still in existence and does much useful work. These institutions are all in Pathankot: a school started at Narot in 1890 was closed five years later, but the Mission still has a school at Sujanpur.

In 1890 the Pathankot Mission had about 30 converts and in 1912 it had a Christian community of 423 in Pathankot town and nine other villages. The present missionaries are the two Misses Wilson who are very respected residents of Madhopur, and the Revd. J. H. Stewart who joined in 1909.

In the Gurdaspur Tahsil the work of this Mission was first started in 1871 by Dr. J. S. Barr, one of the pioneers of the Mission in India; he was then stationed at Zaffarwal in the Sialkot District and after the Revd. F. P. Swift, an Indian ordained minister,

had been sent to reconnoitre, one John Clement, a catechist, was permanently located at Gurdaspur in 1872. When the Revd. Dr. A. Gordon, above referred to, first came here in 1876, there was, so far as is known, no single native Christian in Gurdaspur or the neighbourhood. Dr. Gordon built the mission-church and the mission-house during the 7 years he was in Gurdaspur. After his transfer the Revd. A. B. Caldwell was here for 11 years. From 1896 to 1912 the Revd. D. R. Gordon, Dr. Gordon's son, worked this field: in 1912 he was succeeded by the Revd. A. M. Laing.

The American United Presbyterian Mission.

The first zenana missionary work in Gurdaspur was inaugurated by Miss E. E. Gordon and Mrs. Dr. S. E. Johnson. On September 17th, 1880, a small dispensary was opened in the city and by means of it they carried on work for five years. This work is still gratefully remembered by the people. The Misses J. L. White, E. D. Anderson, S. E. Dickey, Cynthia and Rosa Wilson, K. M. Corbett, L. G. Dickson and Olive Laing have been engaged at different times in work among the women in Gurdaspur city and district. Miss K. M. Corbett died on September 26, 1913, and her body lies buried in the little cemetery belonging to the Indian Christian community of Gurdaspur.

Mission work in Gurdaspur from the beginning has consisted mainly of preaching among the villages of the tahsil. A good Government school exists in the city, and there was no need of starting any educational institution. Similarly there seemed no pressing need for a hospital. In due time, as the result of village work, about twenty indigenous schools were opened in different centres, and Christian communities have developed; these are, as rapidly as possible, being organised into regular congregations in charge of Indian Christian pastors who are supported by their own respective flocks.

The converts are almost entirely from the Chuhra class and number over 4,000. The chief difficulty the missionaries have to contend with is the taste of these people for carrion and the convert appears to feel strongly the temptation to relapse into this unpleasant habit.

The Shakargarh Tahsil is worked by the same Mission from its head-quarters at Zaffarwal in the Sialkot District.

The Methodist Episcopal Mission.

63. The Methodist Episcopal Mission, which has its head-quarters in Lahore under the Revd. J. C. Butcher, M.D., extended its operations to the Batala Tahsil in 1904. There are now, 24 male workers, of whom 3 are ordained Indian ministers located at Batala, Harchowal and Ghaniaki, respectively. The

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converts are mostly of the Chuhra caste, and on October 31st, 1913, were reported by the Mission workers to number 6,168, the baptisms for the past year having been 944. There are no schools belonging to this Mission here, but all the workers are expected to teach as they have opportunity: in 1913 they claimed to be teaching 221 boys, and a number of the boys and girls of the tahsil are in the Boarding and Training Schools for boys and and girls in Lahore.

The Salvation Army.

64. The Salvation Army started operations in the district about 17 years ago and has made great progress in that period having a larger number of converts here than in any other district in the province: in the Census of 1911, 18,073 were returned as belonging to this persuasion in the whole province and it is now claimed that there are 13,332 converts in Gurdaspur and Batala, to which two tahsils the work is confined: practically all the converts are Chuhras. There are 2 day-schools in Gurdaspur and 10 in Batala. The staff consists of 2 European missionaries in each tahsil, 71 Indian missionaries, 107 half-time Indian missionaries, or "envoys," and 336 local missionaries who are unpaid. An account of the general work of the Salvation Army in the province is given in paragraph 271 ofthe 1911 Census Report.

Occupations.

65. The main occupation of the people is of course agriculture and trades subservient thereto: nominally only 52 per cent. (as against the provincial figure of 58 per cent.) are shewn in table 17 as subsisting on pasture and agriculture alone, but these exclude the considerable number who combine agriculture with other occupations as well as those who fulfil the multifarious duties ancillary to agriculture. The second largest class is those engaged in industries concerned with refuse matter, including *Chuhras* (and in Batala, *Chamars*) and *Dumnas*, all of whom are also largely employed in agriculture. Industries account for 27 per cent., commerce for 9 per cent., professions for 3 per cent., and other trades for the remaining 9 per cent. The village weavers form the bulk of those who are shewn as engaged in textile industries and only four districts in the province contain a larger number of *julahas*; *Kashmiris* and *Meghs* are also weavers. *Mochis, dhobis, darzis, chhimbas* and *nais* are comprised in those whose business is connected with "Dress and Toilet." Transport workers, among whom are included Railway and Canal employés and boatmen, as well as the *kumhars* who are the village carriers, are naturally numerous. Those shewn as in Domestic Service are mainly the *jhinwars* and *mashkis* who are the village water-carriers. Carpenters and sawyers pursue a paying occupation, and Mr. Latifi has advanced the theory that

the wood-industry thrives especially in the submontane districts which are nearest the source of the supply of timber. Certainly Gurdaspur cannot be said to be remarkable for the possession of large progressive towns or for the encouragement of building operations on a large scale, which are said to be the outward signs of a large carpentering industry: yet the district stands ninth out of all the districts of the province in the number of carpenters among its population. Metal-workers are *lohars*, and bankers and traders in food-stuffs are mostly *Brahmans, Khatris* and *Banias.* Among minor occupations may be noticed the makers of baskets and the plates and cups which are formed out of *pattha* (*Chamacrops Ritchiaria*) in which industries the district stands sixth in the province for the number of persons engaged in them. Rope-weaving from *san* and *munj* and *kana* grass, which grows freely in the *chambhs,* is carried on by *Labanas, Turks* and *Bairupias;* the last named come into the district from outside for the purpose. *Kashmiris* raise silk worms. *Jhabels* catch fish and snare game, *Bharáis* are beggars who beat the drum, but some of them are actual land owners. *Changars* are vagrants and are largely employed on canal works. *Mirasis* are minstrels and village servants.

Food.

66. An ordinary peasant goes out to his fields early in the morning and eats nothing before leaving his house. At about 9 A.M. his breakfast is brought by some woman of his house or by a boy or girl. It consists merely of bread made of flour mixed with salt and of some *chhah* (butter-milk) if he happens to possess a milch animal. At noon he usually goes back to his house for his midday meal; but if he has to work at his Persian-wheel his food is generally brought to him at the well. It consists then of bread and sugar and also of some *ghi* if he can afford it. Those who have to work in the fields take a similar meal in the afternoon. The night meal is taken in the house and includes some bread and some *salan* which is usually *dal* or pulse. Sikhs and Rajputs then usually take a dram.

In the plains portion of the district bread is generally of wheat, but in the hills maize is the staple article of diet. In rice-producing tracts, such as the Andhar and Pathanti circles of the Pathankot Tahsil, rice is generally eaten at night with a kind of sauce known as *mahni* made of the dried pulp of mangoes fried in oil and mixed with pepper, salt, &c. Guests are usually feasted on rice, sugar and *ghi.* Meat is also cooked where procurable. In the rainy season *puras,* made of flour, sugar and *ghi,* are much prized as food. In cold weather a pudding made by boiling rice in cane-juice and the *sag* of *sarson* are considered choice dishes.

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67. A peasant's dress generally consists of a *tahband, kurta* and *pagri*, and a *chadar*. The *tahband* which is worn round the waist is made of two strips of cloth sewn together. The *chadar* is similarly made and is wrapped round the body. The *pagri* is generally of muslin and the other articles of dress of ordinary country cloth. In winter the *chadar* is replaced by a *dohar, dotahi, bhura* or *loi*. A *lungi* is sometimes worn instead of a *tahband*. Most zamindars wear a *langota* or *sutna* under the *tahband*. The *tahband* is usually put off when work has to be done in the fields and the *langota* or *sutna* remains the only covering of the lower half of the body. Young men generally wear coloured *pagris*; other articles of dress are not generally coloured; Arains, telis and kumhars, however, sometimes wear black *tahbands*. The Rajputs of the Pathankot Tahsil usually wear trousers or *dhotis* instead of *tahbands*. An ordinary zamindar does not generally change his clothes except on occasions of festivals, fairs and marriages. Muhammadans wear no ornaments; but Hindus sometimes wear *budkis, kanthas* and *karas*.

Dwellings.

68. The walls of the house are generally of mud and the rafters of the timber of trees found in the village. The house consists of an enclosure containing a court-yard, a place for cooking, a *dalan* or verandah and several rooms behind it. The enclosure has a single door, and only well-to-do zamindars have a *deorhi* or portico. The roofs are low and there is practically no arrangement for ventilation or drainage. Some zamindars have separate enclosures for their cattle; but others keep them in their houses. Fodder is generally stored in the fields. There are no joint guest-houses, but *dharamsalas* and *takias* generally contain a room or two where travellers may pass a night.

The standard of comfort is improving in the matter of dwellings, and there is a growing tendency to build *pacca* houses with deodar timber.

Funeral rites among Hindus.

69. According to the Shastras there are prescribed 16 *sanskaras* from birth till death for every Hindu. The last is called *anteshti sanskara*. The word *anteshti* denotes the last oblations. Ancient Aryas called this *medhyagna* also, because this directed how the dead body should be disposed of by fire. All these *sanskaras* were meant for the purification of the soul and the body; the word *sanskara* means the process of refining. Fire, or *agni*, was the principal force in nature which gave light and life, and removed all impurities: this represented God as the source of all life and light and the origin of all purity. Hence from birth to death all good deeds and ceremonies were enjoined to be performed in fire. A Vedic text says that all are born

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in fire, live by fire and are ultimately taken back in fire. Hence the ordinance that the dead should be burnt. This would explain most of the funeral rites which were in later times superadded to the ceremony. The rites which are now in vogue may be thus described :—

When a Hindu is about to die, he is taken from his bed and is laid on the floor well cleaned and besmeared with cow-dung. To die on a bed is considered a great religious demerit.* This perhaps originated from the idea that the Hindu must be a *sanyasin* at the time of death, and the use of a bed is prohibited to a *sanyasin*.

When so laid on the *bhum ásan*, he is made to perform a ceremony called *diva batti :* an earthen lamp is lighted and put beside his head ; a Brahman utters a formula, and then makes him give in charity some cash, corn and cattle (cow, horse, &c.) and land according to his means. These death-bed gifts are taken by *Gujrati Brahmans* who are a class apart from ordinary Brahmans.

When the man dies he is washed by his relatives, and his body is covered with a clean cloth. In some cases scents, &c., are also sprinkled on the body possibly to serve as disinfectants. His near relations also shave their heads and beards. The dead man's son or other nearest relation puts on *bhungi* and proceeds to the performance of all the funeral rites. This person is strictly enjoined to live apart from all and nobody is allowed to touch him. This perhaps originated from the idea that the son or other relative having had to attend upon the dying man often during his sickness, it was considered safer not to allow him to mix with other people. But now a religious colour has been given to it and the person who wears *bhungi* is enjoined to be strictly clean ; he should bathe regularly and otherwise observe all rules of purity of body and mind.

When the dead body has been washed and covered with the shroud, it is placed on an *arthi* prepared of wood. This *arthi* in the case of an old man with children and grand-children is prepared after the fashion of a *viman ;* it is decorated and lined with gold lace, and covered with some red silken or *pashmina* cloth befitting the situation in life of the dead man. An old man's *viman* (*arthi*) is taken to the *shamshan* (burning place) with bands playing, cash and almonds and other dried nuts are

*If a man dies in his bed no *kirya karm* can take place unless the ceremony called *Narain holi* is first performed by the son of the deceased. For this *havan* has to be performed continuously for days together, and recitations of *gayatri mantras* should take place several thousand times. Each day during its progress the Brahmans, who recite the *gayatris* and perfom the *havan*, are sumptuously feasted, and when it is over rich gifts are given to them. This ceremony is performed before the regular *kirya karm* takes place.

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scattered broadcast; these are picked up by children and others who prize them highly as they think that if eaten they will bring to them a similar good old age. The bier is carried by four persons at least, who should be near relatives of the dead man. When the bier has gone half way, it is put down on the ground; all this while the head of the corpse should lie towards the south and the feet towards the north. There a ceremony, called *adhmarg* (correctly *adh marag, i.e.,* half way), is performed by the son or in his absence by some other near relative of the deceased. A *pinda* of barley, &c., is offered and a certain formula is uttered as a prayer of peace for the dead man's soul. This might originally have been resorted to to give rest to the bearers, but now it has taken the form of a solemn funeral rite. Here the carriers change sides, the front batch goes to the rear, and the rear goes to the front. They then restart and only stop at the place where the dead body is to be burnt.

According to strict Shastric injunction a pit should be dug as long as the length of a man with stretched arms, and as broad as the arms stretched across the breast. There the corpse should be placed between wooden boards which should not be made of *kikar;* strictly speaking, the corpse should be burnt with *ghi* and other disinfectants and odoriferous articles, and there should be a sufficient quantity of sandal wood. But in modern times a corpse is not often burnt in this way. A small quantity of *ghi* and *til* and barley and sandal wood is all that is used. Much money is spent on other things, *e.g.,* on the coffin cloth, utensils and other presents which are appropriated by the *Maha Brahman,* the *acharja,* on this occasion. When the dead body is put on the pyre, the *Maha Brahman* recites some Vedic texts, offers some *pindas* again made of *til,* barley and rice and then sets a light to the pyre.

When the body is nearly consumed another rite is performed, which is called *kapal kirya, i.e.,* that of breaking the skull; this done, the party returns to some well or tank, where all of them bathe and wash their clothes. Then the *Maha Brahman* offers a prayer and makes all break straw and throw it overhead. This ceremony is called *tinka torna;* he then preaches a sermon, inculcating that this is the way of the world, the dead has gone whence it came; that nobody should grieve for it, for that so in the circle of creation births and deaths take place in the course of nature. Thence the party returns to the house. They bend their knees for a while, and then a barber sprinkles water over them, and asks them to depart: the funeral party then breaks up.

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The place where the dead man was laid is washed and besmeared with cow-dung, and according to the Shastric injunctions fire should be kept burning and incense and other disinfectants such as *nim, glo,* etc., should be burnt. But now it is considered sufficient to wash and clean the place. After the fourth day, the family and other near relations go to the *shamshan* to gather the bones and ashes of the deceased in company with the *Maha Brahman.* There they pick up the teeth, nails and bones, and wash them in milk and water, and put them in a jug ; the ashes are also gathered, and thrown into some stream or river near by, but the bones and teeth are sent to be thrown into the Ganges with other presents of cash, &c., according to the means of the dead man. This ceremony is called *chautha* or *asthi chain.* On the 10th day another ceremony, called the *dusehra,* is performed. All the members of the family, male and female, go to the riverside, wash their clothes and shave ; the women also wash their heir and clothes and afterwards return to their houses. The dead man's survivors should also supply soaps and curds to the *biradari,* both male and female.

The *kirya karm* ceremony then remains to be performed. This is an important rite, and among the *Brahmans* and *Khatris* it is performed on the 11th and the 13th day after death. The *Vaishas* and other castes of *Shudras* perform it on the 16th or 21st day.

The son of the deceased who had worn the *bhungi* is made to bathe many times and give oblations of water and rice and corn by the *acharja.* Then the clothes, cow, bed, bedding, cash, utensils and other articles are given away in charity to the *Maha Brahman:* and a feast is afterwards given to the *Brahmans.* The *patak* ends with this ceremony, and purification is then complete. During all this time, *i.e.,* from the day of death to the day of *kirya karm,* nobody of the household can attend to their ordinary duties, all must keep in mourning and be present in the house. Sermons or *katha* are recited every day from some book, especially from the *Garar Puran.* It is on this occasion that the eldest son of the deceased is installed as the head of the household in place of his father, and in token thereof the *panchait* makes him wear the turban which is usually given by his father-in-law to signify his succession to the headship.

A year later the ceremony of *barkhi* is due. On this occasion also cash, clothes, bed, utensils, &c., are given away to the *Brahmans,* who are also feasted. The *chaubarkhi* ceremony takes place in the fourth year after death, when similar gifts and feasts are given. In the case of an old man's *chaubarkhi,*

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gindora or sugar cakes and sweets are distributed to the married daughters of the family. After the *chaubarkhi* the dead man is included in the list of *manes*, *i.e.*, *pitras*, and thence forward no ceremony takes place except during *shradh* days when *Brahmans* are feasted.

In some parts of this district, especially among the Dogra Brahmans, inhabiting the submontane tract, they distribute leaves of *nim* and pepper to all those who accompany the bier, as well as to those who happen to come on visits of condolence on the day of mourning. They also throw burnt rice broadcast over the place where the man had died.

The above are the funeral rites which are in vogue among the Hindus in this district, but of late some change is perceptible. Advanced Hindus, who have joined the *Arya Samaj*, do not perform all the ceremonies. They consider that burning of the dead is all that is necessary, and this should take place in true *shastric* style, *i.e.*, the corpse should be burnt in *ghi* and disinfectants, the weight of which should be equal to the weight of the dead body. They burn their dead and recite *Vedic mantras* and at the end of each *mantra* they pour oblations of *ghi* and disinfectants with the word *swaha*. They carry their dead reciting *Vedic mantras* and song, suited to the occasion. They collect the bones, &c., after the fourth day, but do not send them to the Ganges; they consider that they may be thrown into any river. They do not perform the *kirya karm*, but keep the fire burning for 13 days at the place where the man died. Charity, &c., they do not allow, saying that it does not benefit the soul that has gone, but only benefits him who gives it. The burning of the dead body is all that is necessary, and this should be done with strict regard to *shastric* injunctions.

The period of mourning is usually one year, and it is principally observed by the women, who do not wear ornaments or coloured garments. For men there is no particular sign of mourning, except that the members of the family do not use meat or turmeric in their food; but this custom has now largely fallen into disuse, although Dogras observe it to some extent.

Burial rites of Muhammadans.

70. There are few rituals incidental to the death of a Mussalman. The idea of these is to concentrate the attention of the dying person upon God, and to give consolation to his relatives and friends. *Yasin* (Chapter XXXVI of the Koran) is read out within the hearing of the patient, who is made to repeat the six *Kalimas*, viz., *Kalima Tayyib*, *Kalima Shahadat*, *Kalima Tamjid*, *Kalima Tauhid*, *Kalima Istighfar*, and *Kalima Radde Kufr*. This,

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however, is, not done in the case of children below 12 years of age. Honey diluted with water is poured into the mouth, the healing effects of honey being supposed to relieve the dying man.

The clothes on the dead body are removed and made over to the undertaker, who is generally the *Mullah* of the neighbourhood, or to a poor person, if the body is washed by the relatives of the deceased. In order to prevent water entering the nostrils and ears, cotton is put into them. Country-made soap and leaves of the *beri* tree are put into the warm water which is then used to wash the body. Two sheets are used for the shroud. One has a hole made in the middle of it and covers the body to the feet. This is called *kafin*. The body covered with the *kafin* is then wrapped in the other sheet which extends from the head to the feet and is knotted at its ends. *Kalima* is traced with clean clay on the *kafin*. Camphor and rose water are thrown over the body and its coverings.

The bier consists of a clean bedstead, in the case of males, and of a bedstead surmounted with an arch-like structure, usually of bamboo sticks, in the case of females. The bier with the body is called *janazah*, and is carried on the shoulders of four men, who are relieved by others from time to time. Not only friends, relatives and sympathisers but any one who chooses may accompany the bier. The party moves at a slow pace repeating *kalimas*.

The body of an infant is carried by a single individual, who is relieved from time to time.

Prayers for the departed soul of a person, irrespective of age and sex, are performed in a mosque or an open space to admit of as large a party as possible.

After prayers the body is laid on its back, with face turned to the west and head to the north, in a recess (*lahad*) in the middle or on the western side of the grave. The grave is slightly longer than the size of the body, is 5 feet deep, and points north and south. The *lahad* is then covered in on the top with bricks, stones or earthern vessels to prevent earth from falling on the body. A small mound pointed in the middle is raised over the grave.

Large graveyards in towns have a resident *fakir* to look after the graves. In villages, however, there are no such watchmen, and the friends of the deceased visit the grave till the danger of animals digging out the body has passed away. In some cases wealthy heirs of the deceased appoint a man to read the *Koran* and to look after the grave.

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On the third day after death, friends and relatives of the deceased say the *Kalima* and for each *Kalima* put some parched gram on a heap, until 12½ seers are collected. Then the gram with sugar *patashas* or *ilaichidanas* is distributed among the party. In some cases, the whole of the *Koran*, in detached portions, is read by several men at one sitting, and prayers offered up for the soul of the deceased. Usually the deceased's family do not eat their own food but are provided with it by friends and relatives, for the first three days after death.

Feasts are given every Thursday during the first forty days to poor persons and *mullahs* besides the meal sent to the mosque every day.

On the 40th day, *Fatiha* is said and a feast given to the poor. The well-to-do invite not only the friends and relatives but also the whole of the deceased's village to the feast. Each of the friends and relatives of the deceased presents the heir with Re. 1 and a turban. This last function is called *dastar bandi*. Clothes and money are distributed to the poor and the menials.

Fairs and festivals.

71. A list of the principal fairs of the district is reproduced below from the Gazetteer of last settlement :—

Tahsil.	Place.	Date.	Average attendance.	REMARKS.
Gurdaspur ..	Pandori ..	Baisakhi in April.	10,000	Connected with the *Bairagi* temple here, but a considerable trade is carried on in plough-beams, winnowing baskets, &c.
	Dinanagar ..	Dusehra in October.	7,000	Was originally connected with the festival, but is now a regular cattle fair.
	Pakiwan ..	October ..	15,000	The *Pareva mela* of the Gorara Jats. See also Gorala.
Batala ..	Ghuman ..	January ..	7,000	Festival of Bawa Nam Deo.
	Achal ..	Baisakhi, in April.	7,000	Connected with the *shivala* of *Achleshwar*.
	..	Naumi Daswin, in November.	10,000	The attendance of *Sadhus* of all classes at the November fair is very large.
	Kastiwal ..	May ..	22,000	The Urs of Bawa Farid Godar.
	Masanian ..	12 & 13 Rabi-ul-awal.	5,000	The Urs of Sheikh Badr Diwan; a small gathering is also held here on every Thursday at new moon.

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Fairs and festivals.

Tahsil.	Place.	Date.	Average attendance.	REMARKS.
Pathankot ..	Hara ..	Holi, in March.	4,000	Connected with the *mela* of Parshotam Rai.
	Bharath ..	Baisakhi, in April.	5,000	In honour of Siri Chand, son of Bawa Nanak.
	Sultanpur ..	June ..	10,000	Is held when the Sultania pilgrims collect for their march to Dhaunkal. This is one of the halting-places.
Shakargarh ..	Gorala ..	October ..	20,000	Is known as the *Pareva* and is a special festival of the Lalli Jats, who collect considerable sums, which are disbursed in prizes to wrestlers and others. It is a semi-religious meeting in honour of a deceased ancestor of the clan.

Many minor fairs are held besides these. The Baisakhi fair is not confined to the three places shewn in the list but is held at several other centres, for instance, at Doda and Kot Naina in Shakargarh, Bahmani, Galri and Kalanaur in Gurdaspur and Dhianpur in Batala Tahsil. The principal feature of the Baisakhi fair is the singing of obscene songs and the performance of *Bhangra*, a hopping dance, by Jats. Fairs similar to those at Gorala and Pakiwan are held at several other villages of Goraya and Lalli Jats in honour of Middan, an ancestor of the Gorayas who was married to a Lalli woman. He was, it is said, kept for 12 years in captivity by a king and released at the intercession of a *mirasi*. These fairs commemorate this event, and their principal feature is wrestling matches at which considerable sums are given in prizes out of collections made by Goraya and Lalli Jats. The gatherings of pilgrims to Dharmkot also take place at several places besides, at Sultanpur, for instance, and Masrur and Shakargarh. The Dusehra festival is celebrated at many places. A fair is held at Dera Nanak on the 23rd of March in each year when the *Chola Sahib* (a shirt which Baba Nanak is said to have worn and on which verses of the Koran are written) is exposed to the public gaze. This shirt, it is believed, Baba Nanak was made to wear at the time of his visit to Mecca with the idea of securing his conversion to the Muhammadan religion. It had no effect on him and so stuck to his body that it could not be removed. A fair is also held at Kalanaur on the day of *Shivratri*

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in connection with a large black stone representing *Shiv.* Maharaja Kharak Singh wanted to build a *baradari* for himself at the place where the stone lay. On being struck it bled, and the Maharaja was informed by a supernatural agency that it extended as far as Kashi and could not be dug out. This led to his building a temple at the place instead of a *baradari.*

The following is an account of the Hindu festivals and the manner of their observance :—

(1) *Sawan.*—This festival is connected with the *Sawan* month. The parents of married girls send them clothes and ornaments. On Sunday the girls of every village go out together to some pond or stream taking some sweet bread with them and there eat, sing and swing.

(2) *Diwali.*—This festival is celebrated by illumination of houses and gambling.

(3) *Lohri.*—The parents of married girls send them clothes and sweetmeats and those who have had sons born to them during the year give some cash, *gur* and parched maize to the village boys. Bonfires are lit.

(4) *Holi.*—This is a festival of revelry, the principal feature of which is the throwing of coloured water over one another.

(5) *Rakhri.*—The Brahmans tie *rakhris* round the wrists of their *jajmans* and are paid. The sisters tie *rakhris* to the wrists of their brothers and get presents of money.

The manner of the celebration of the principal Muhammadan festivals is as follows :—

(1) *Chhoti Id.*—New clothes are put on. *Sewiyan* or vermicelli is eaten and distributed. Prayers are said at the *Idgah,* friends visit each other and fairs are held at different places.

(2) *Bari Id.*—New clothes are put on, prayers are said, goats, etc., are killed and meat distributed.

(3) *Shabrat.*—Halwa is cooked and distributed. Fireworks are let off by boys.

(4) *Tazias.*—The village girls sing songs of mourning and beat their breasts in memory of the *Imams. Tazias* are made and carried about and the people

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throw pice and corn into them. Rice is cooked and distributed.

Fairs and festivals.

Games.

72. The following games are commonly played by children:—

(1) *Kabaddi,* which closely resembles prisoner's base. In this game the two parties are drawn up opposite to one another with a line drawn between them called *banna.* A member of one side rushes across this line and after trying to touch one of the other side tries to get back without taking breath. If he succeeds in touching one of the opposite side the boy touched is considered dead; if, however, the runner is caught and held by the opposite party until he has to take breath he himself is considered dead. The game goes on until so many of one side are dead that the other side has to give in.

(2) *Gulli-danda.*—This game resembles tipcat. The stick is called *danda* and the small piece of wood pointed at both ends, which is struck with the *danda,* is called *gulli.* A hole called *khutti* is dug. Boys divide themselves into two parties. At first one player of the first party places the *gulli* over the hole and putting one end of the *danda* in the hole tries to throw up the *gulli;* if the *gulli* is caught by any one of the other party then the player loses his turn, but if it is not caught by any one then the player places the *danda* across the hole and one of the other party tries to touch it by throwing the *gulli* from the place to which it had been thrown. If he succeeds in touching the *danda* with the *gulli,* then the player loses his turn, but if he does not succeed then the player bounces up the *gulli* by striking the *danda* on one of its pointed ends and then strikes it with the *danda* as far as he can, allowing the members of the opposite party a chance of touching the *danda* at the hole at every stroke. The game goes on until one side has succeeded in throwing the *gulli* to such a distance that it is impossible for the other party to touch the *danda* at the hole by throwing the *gulli.* This party now takes a ride upon the members of the other party from the place to which they have thrown the *gulli* to the hole.

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(3) *Thikri chhupānā.*—This game is played by a number of children who divide themselves into two parties and arrange themselves in a line on the ground opposite to one another at some distance, with two leaders standing in the centre. One of the leaders takes a piece of broken earthenware called *thikri*, and going round to his members gives the *thikri* into the hands of one of his party; all the members of his party then sit down with closed hands. The members of the other party through their leader try to guess the child in whose hand the *thikri* is. If they manage to guess correctly then the *thikri* is taken by their leader and dealt with in the same way. If, however, the guess is incorrect then the members of the party in possession of the *thikri* begin to hop on the ground and continue to do so until either the guess of the opposite party turns out to be correct or they have reached the original position of the other party. The party which manages to reach the original position of the other party first, wins the game and takes a ride upon the other party from one end of the field of play to the other.

(4) *Khiddo khundi.*—This is much the same as hockey.

(5) *Samunder tapu* or *keeri kara.*—This is much the same as hop-scotch.

The following divisions are marked out on the ground :—

A	Pahal 1	Duj 2	Teej 3	Billi 5 / Billa 4	Channi 6	Nikki chadar 7	Bari chadar 8	Tapu 9	Samundar 10	B

This game is generally played by two boys. One boy takes a piece of broken earthenware called *thikri*, and standing near the first division throws the *thikri* into division No. 1. He then hops on one foot into this division and tries to kick out the *thikri* which must pass over the smaller end of the whole rectangle towards A. He then hops out and throwing the *thikri* again into division No. 2 tries to do the same as before and continues to go on in the order marked on the plan; he loses his turn when either the *thikri* is not kicked out

clean or goes out over the longer end of the rectangle. Divisions Nos. 4 and 5 are for rest; when a player has reached division No. 6 he has to take a rest every time in hopping backwards and forwards with his two feet resting in the two divisions; when a player has reached division No. 10 and has succeeded in kicking out the *thikri*, he places it at B on the other side of the rectangle and holding it on his raised foot tries to hop out of all the divisions. If he succeeds in getting out of all the divisions without allowing the *thikri* to drop he wins the 1st division into which the 2nd player cannot now place his foot in hopping. The game goes on until one of the players succeeds in winning so many divisions that it becomes impossible for the other player to hop across.

(6) *Bander killa.*—A circle is drawn on the ground. One boy sits down at the centre holding one end of a rope or more often a turban, while another taking hold of the other end runs round the circumference. The rest of the players stand outside the circle and try to enter the circle one by one and strike the boy at the centre with the hand; meanwhile the boy running on the circumference tries to catch the striker. If he succeeds in catching the striker then the boy caught takes his seat at the centre and the boy at the centre goes to the circumference, while the boy at the circumference goes out and joins the rest of the players outside the circle.

(7) *Lukan michchi.*—This is very much the same as the English game of "Hide and seek."

(8) *Kora chupaki.*—This is the same as the English game of "Drop the handkerchief."

(9) *Gutti.*—Boys in the hills play '*gutti*,' a kind of marbles. A small hole is made in the ground, usually against a bank, and the players, standing some five or six yards off, endeavour to throw some roundish object, such as an almond or a walnut into the hole: the boy who gets his almond or walnut into the hole collects those of the unsuccessful players and throws them all together at the hole: those which fall in he retains.

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Names and titles.

73. The following forms of address are in vogue among the chief tribes of the District :—

Rajput (superior)—*Mian ji*, or *Thakur ji*.

Rajput (inferior)—*Chaudhri ji*.

Pathan—*Khan Sahib* or *Chaudhri ji*.

Jat—*Sardar Sahib* to a true Sikh of good position : *Chaudhri ji* to others.

Brahman—*Mahant ji, Pandit ji, Diwan ji, Parohit ji.*

Khatri—*Lala ji, Diwan ji, Shah ji.*

Bania—*Lala ji, Shah ji.*

Bedi—*Bawa ji.*

Gujar—*Chaudhri ji.*

Moghal—*Mirza Sahib.*

CHAPTER II.—ECONOMIC.

Section A.—Agriculture, including Irrigation.

74. The conditions of agriculture vary widely in different parts of the district; owing to the submontane character and favourable rainfall of the greater part of it, the distinction which prevails in the centre of the province between irrigated and unirrigated lands is of less importance, although it must always form the main difference between soils. General conditions and soil.

75. The Pathankot Tahsil is the most varied part of the district. About five miles north-east of Pathankot the outlying spurs of the foot-hills are encountered, and from this to the Saili Dhar, 16 miles as the crow flies, the ground is broken up by low hills, the main ranges of which run across from the Ravi to the Chakki in parallel ridges, of which the chief are the Saili Dhar on the Chamba boundary, the Dalla Dhar, with its continuation the Nag Dhar, and the Ratta Dhar or outer range. The highest point attained by these ranges is at the trigonometrical station on the Dalla Dhar, of which the altitude above the sea level is 2,772 feet. Between the two first ranges there is a fairly fertile valley about five miles wide, which on the Ravi flattens out into the Sarti-Phangotah plain which forms so marked a feature in the landscape seen from Dalhousie. The rest of the hill circle is very broken and covered with scrub jungle, with here and there a few *chil* trees, and the soil is of a very poor character. The surface is nowhere very rich, and where the flat beds of sandstone closely underlie the surface the crops can only survive if helped out by frequent and timely showers of rain. The cross-ranges of hills at close intervals prevent the formation of any considerable streams, while the few torrents that exist have cut deep beds through the soft strata by which they rapidly discharge their waters into the Ravi or Chakki, as the case may be, and so remain for the greater part of the year mere dry boulder beds. In this circle with its stony soil, agriculture is confined to the lands immediately surrounding the scattered homesteads, to the stretches of stiff clay which produce only rice, to the occasional plateaus of fairly fertile land and to the terraces which the people have laboriously cut out of the hill side. Irrigation is practically non-existent, but the circle benefits by sharing in the heavier rainfall of the upper hills which it adjoins. Below the outermost range of low hills is found the Kandi tract, much of it covered to all appearance with large water-worn pebbles: yet the Kandi wheat is famous, and it is said that Maharaja

Pathankot.

The Hills.

The Kandi.

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Ranjit Singh used to insist on flour made of the wheat of this tract. The southern portion of the present Kandi circle is watered by two systems of kuhls, known as the upper Chakki kuhls, of which the Mamun is the chief, and the Lower Chakki kuhls, of which the Dhangu waters a considerable area. Cane and rice are raised above and around Pathankot, but there is not sufficient water for rice in the Dhangu kuhl, and cotton takes its place in these villages. Westward of these lies the Shah-Nahri consisting of strips on each side of the Bari Doab Canal: where not canal-irrigated the soil is poor and infertile. Further west is the Bet Ravi, a river *khadir* of the usual fertile type: only the villages to the west are inundated to any extent by the river floods. In the Doab between the Ujh and the Ravi lies the Chak Andhar amply irrigated by the reticulation of kuhls from the Ravi and its tributaries. East of the Andhar and much resembling it is the Pathanti, watered by the Badshahi Canal, which is owned by the irrigating villages in common.

The Shah-Nahri. The Bet Ravi. The Andhar. The Pathanti.

Shakargarh. The Darp and Paintla.

76. The centre of the trans-Ravi tahsil of Shakargarh is a level plain, well-irrigated in the Darp circle to the west where it is furthest from the hills, and to the east in the Paintla, which is old alluvial from the Ujh, sufficiently moistened by the constant rainfall. To the west, the high lands of the Bharrari, where there is no well-irrigation, depend almost entirely upon rain and the moisture which is retained in the valleys of the torrents, but the arid and denuded soil of these uplands is very different to the soft alluvial of the Paintla and demands a much heavier rainfall. The Bharrari is not, as might be supposed from a glance at the map, a portion of the direct slope from the Himalaya to the plains, but contains a more or less distinct watershed of its own, which follows the northern boundary. Along this rounded stones are frequent, and in one or two places, as at Masrur, soft sandstone crops out. The ridge, though not much denuded, is perhaps a continuation of the Siwaliks, which would explain the similarity of some of the peculiar characteristics of this tract and the Hoshiarpur District. At any rate the soil and people are quite unlike those found in the adjoining tahsils of Pathankot and Gurdaspur. From this watershed the country slopes rapidly south-west and the drainage lines soon cut deep beds for themselves through the friable soil and form sandy-bedded torrents. These are joined by smaller lateral nalas, and so the tract is terrribly cut up in places by ravines. The surface soil is washed off into these, leaving exposed the subsoil, which consists mainly of a hard reddish clay of a very sterile character. In places there are fertile depressions as in the valleys of the Hodla and Dehr, and in the beds of the main streams

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there are considerable strips of good moist land which produce fine crops. Here and there the uplands have escaped too rapid denudation, and there are stretches of fair rain soils. To the south of the tahsil lies the Bet Ravi inundated in its upper part by the Ujh with inferior fertilising qualities to the Ravi, and in its lower by the Ravi.

The Bet Ravi.

Gurdaspur and Batala.

77. The two tahsils of Gurdaspur and Batala have much the same characteristics and approximate much more closely than do the other two tahsils to the conditions which obtain in the ordinary plains district. On the one side the Ravi and on the other the Beas provide a strip of rich alluvial, but in Gurdaspur the general resemblance is broken by the great Kahnuwan Chambh which has already been described in paragraph 11.

The Bets Ravi and Beas.

Raised above the Beas alluvial is the Bangar or upland tract of the Bari Doab. Its eastern boundary is marked by the high western bank of the Beas, known locally as the *dhaia*, which is one of the curious features of the district. Running straight down from north to south from the village of Gharota in Pathankot to Khokuwal in Batala, it forms the boundary between the low lands of the Beas valley and the upland tract. The average height is about 50 feet. To the north the soil is stiff red clay covered in places with rounded pebbles, which, however, are not found below Mari Panwan. Further south the soil is lighter and more easily cut up. Down to the northern border of the Batala Tahsil the Beas now runs at a distance of some miles from the high bank, the clay has been cut through by the rainfall, and numerous ravines have been formed. In Batala the intervening lowlands are much narrower, and in some places the river actually touches the foot of the high bank, which in such places is almost perpendicular. From this high bank the plain slopes gradually towards the south-west. At first the *Bangar* tract is very narrow, but rapidly increases in width until it occupies the whole space between the valley of the Ravi and Beas. In the north of the Gurdaspur Tahsil the Bangar is irrigated and forms part of the Nahri circle: to the south, and extending into Batala, is the Bangar circle remarkable in both tahsils for its fertility, the way in which it retains the moisture and the great depth of water: with good rain this is an exceptionally productive tract. Further westward, the Nahri circle in each tahsil is of like character to the Bangar, but more favoured by reason of their canal and well irrigation: the Bari Doab Canal runs through the centre of them in a south-westerly direction, water is near the surface, wells are frequent, and would be more so but for the gift of canal water.

The Dhaia of the Beas.

The Bangar.

The Nahri.

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The Maira Kiran.

Between the Nahri circle and the Bet Ravi are the Maira Kiran circles, a tract more or less under the influence of the Kiran stream, along the banks of which lie strips of sour land always liable to saline efflorescence. This becomes less as the distance from the stream increases and wells become common; though the soil is apt to be clayey, this is a not infertile tract.

System of cultivation and rotation of crops—(1) Irrigated soils.

78. The systems of cultivation are determined with reference to facilities for irrigation or expectation of rainfall, the question whether clay, loam or sand predominate in the soil, and the amount of manure available.

79. Irrigated lands are usually reserved for cane, rice, and wheat, and in Batala to some extent for maize also. Cane follows cane on alluvial land, and even on good *nahri* or *chahi* land, and then it occupies the ground for two harvests. Elsewhere various systems of rotation are followed, such as wheat, *chari* follow cane, wheat; or wheat, cane, maize; or *chari*, cane, cotton; but, whatever system of rotation is followed, the land must be ploughed as often as possible, and heavily manured just before the planting, except, of course, in alluvial land where the silt acts as manure. The stiffer soils are put under rice, but this crop is grown mainly in Pathankot and Gurdaspur: in the latter tahsil the land is then left fallow for a harvest, but in the former the custom prevails of putting in a wheat crop, the results of which are generally extremely poor: the land is allowed no rest, for rice and wheat follow each other without a break. With the exception of a very few villages, Bari Doab Canal water is only given in the kharif harvest and the bulk of irrigated wheat is therefore well watered. Except in Batala, where most wheat on irrigated lands has to be helped out by working the wells, the zamindar always hopes to mature his wheat without watering and in years of favourable rainfall will often succeed in doing so.

Where canal water is available it can be put upon soils with a considerable admixture of sand, and silt will gradually leaven the sand. Well water, on the other hand, having no silt cannot be used on really sandy soils as the water is too quickly absorbed.

(2) Unirrigated soils.

80. In unirrigated soils the *ekfasli* system of cultivation is followed almost everywhere: a rabi crop is succeeded immediately by a kharif crop and the field is then left fallow for a year. Only in a few cases is a longer period of fallow allowed. Where the productive power of the land has manifestly declined more time for recuperation may be given. In one case recently the owner of such a field applied to the Deputy Director of Agriculture

(2) Unirrigated soils.

who subjected the field to deep ploughing: the effect of the treatment was very successful. In the very poorest soils, such as some of the Dhaia Bet lands to the north of the Gurdaspur Tahsil, it is not possible to take crops off the land more often than once every two or three years. One crop in every fourth year is in fact the general rule in the "kut" or terraced fields of the hill circle. Similarly in the Kahnuwan Chambh, except in newly reclaimed land, it is the custom to take one crop of rice and then allow the field to lie unsown for three years before rice is again put in. In all these cases a kharif crop is usually selected, as the monsoon rainfall gives it more chance than it would have in the lesser rainfall of the cold weather. In the Bet Ravi circles maize is followed by wheat continuously year after year or else wheat is followed by wheat with no kharif crop intervening. The fertilising properties of river silt account for the former practice, and the fact that lands subject to heavy flooding cannot be cropped in the kharif is the cause of the latter.

Manuring.

81. The value of manure is thoroughly recognised, and manuring is constantly practised, being only limited by the amount available. Irrigated lands are manured as much as possible, about 200 maunds per acre being the estimate for land constantly manured. The outfields can only be manured when there is a sufficiency. The better soils get it about once every three years, but in deciding whether to manure a particular field or not, the zamindar is guided by the amount of exhaustion which the soil shews. The more distant fields and the lightest sandy soils will hardly ever be manured. Roughly speaking, about ⅕th to ⅛th of the lands of an average village get manured annually. Cane and cotton lands will have the first claim, then rice and wheat: for the two former February and March are the months for manuring, for rice a little later and for wheat September and October.

Sowing and harvest times.

82. The sowing and harvesting of the principal staples of the district take place at the following seasons:—

Staple.	Sowing time.	Harvest time.	REMARKS.
Rice ..	April* ..	October ..	*This is the month for planting nurseries: the seedlings are then planted out in July: the "60-day" rice is sown broad cast in July, and reaped two months later.
Maize ..	July ..	September to October.	

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Sowing and harvest times.

Staple.	Sowing time.	Harvest time.	REMARKS.
Cane ..	March and April ..	December to February.	
Cotton ..	March and April ..	October to November.	
Mash } Moth } ..	July ..	October to November.	
Toria ..	August and September.	January.	
Wheat ..	October and November.	April and May.	
Barley ..	October to January*	..	*Lohri, about the 12th January, is said to be the latest date for barley sowings.
Gram ..	October ..	April.	

Agricultural implements.

83. The following are some of the agricultural implements commonly used in this district :—

Vernacular name.	*Description.*
Hal ..	Plough.
Sanna ..	The upper portion of the plough to which the yoke is fastened.
Kur ..	The ploughshare.
Phala ..	The iron point of the ploughshare.
Kunda ..	The attachment which keeps the *phala* in place.
Jangi ..	The handle of the plough.
Jua ..	The yoke.
Urlian ..	The pegs on the yoke.
Phat ..	The wooden bars of the yoke.
Panjali ..	The lower bar of the yoke.
Jotan ..	The ropes attached to the *urlian* to keep the bullocks under the yoke.
Nehn ..	A leather strap or rope used to fasten the yoke to the *hal*.
Killi ..	A peg to which the *nehn* is attached.
Santa ..	A whip for driving oxen. It has a wooden handle and leather lash.

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Agricultural implements.

Vernacular name.	*Description.*
Sohaga	The clod-crusher—a heavy flat horizontal beam some 10 inches broad and about 8 feet long.
Bail	Ropes to which the *sohaga* is attached to the yoke.
Kun	Wooden pegs at either end of the *sohaga.*
Nali	The seed-drill : elsewhwere called *orna.*
Belna	Sugarcane press.
Chati	The earthen vessels used to collect the cane juice.
Karaha	A large shallow iron pan in which the cane juice is boiled.
Doa	The T-shaped implement used to stir the boiling juice.
Gand	The earthen vessel in which the balls of *gur* are prepared.
Thapi	The instrument used in making the balls of *gur.*
Parchhi	Used in peeling the cane.
Ramba	A flat iron spud with sharp edge and short handle, used to dig up grass roots and weeds.
Gandasa	A chopper with a wooden handle used to chop fodder.
Datri	A toothed sickle.
Gadda	Cart.
Kohari	Axe.
Tangar	A net for *bhusa.*
Parain	A goad.
Kassi	A spade.
Tangli	A three-pronged pitchfork.
Khurpa	A short-handled spade.
Jandra	A rake.
Chaj	A winnowing fan.
Sanga	A two-pronged fork for handling sheaves.
Phalla	The bundle of thorns and stones used for threshing.
Tangli	A six-pronged shovel used to get grain into heaps.
Chhika	The muzzle on the "ox which treadeth out the corn."
Khopa	Leather blinkers used on the oxen when threshing.

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Agricultural implements.

Vernacular name.	*Description.*
Manni	.. A *machan* for watching crops.
Ghomani	.. A sling for the discharge of clay pellets used to frighten birds from crops and fruit trees.
Ghani	.. An oil mill.

Population engaged in or dependent on agriculture.

84. The subject of population engaged in and dependent on agriculture has been touched on in paragraph 65. An endeavour has been made on page 495 of the Census Report of 1911 to estimate the true proportion of persons who subsist on agriculture in the Punjab as a whole. The result is not very convincing, and no attempt to disentangle primary from secondary sources of subsistence among the numerous persons, whose livelihood depends partly on agriculture, has been attempted as regards this district; apart from these, 52 per cent. are wholly dependent on agriculture.

Agricultural labourers.

85. Agricultural labourers are drawn from numerous classes; and when the wheat harvest ripens suddenly over the whole countryside any one who chooses may earn a substantial wage by engaging as a harvester. Most of the village menials will turn out to gain the sheaf which is the usual day's wage for a harvester; from Jammu and adjoining tracts, where work is not so plentiful, men will come to work at the harvest and the employés in mills will desert or beg to be let off for the same purpose. The ordinary agricultural labourer, however, is the Chuhra, Chamar, Dumna, or Megh of the village. In an increasing number of villages this menial class is declining in numbers : quite apart from plague mortality, the main cause of the decrease is the increasing independence of the menials who now exhibit little disinclination to go off and earn their living elsewhere, in factories, in towns or in the canal colonies, where daily labour is highly paid. Many have themselves become landowners. In some of the poorer villages of the Shakargarh and Pathankot Tahsils, especially where the owners themselves are of low caste, there are no menials at all or else a single family or two are persuaded to remain by various inducements.

Crops of the Batala Tahsil—Sugarcane.

86. The Batala Tahsil is the most favourably situated for cane-production, and the average outturn per acre is much larger than that in any of the three other tahsils. The outturn is heaviest on canal-irrigated lands in the Nahri circle, and especially, according to the last Gazetteer, "in the villages of Marrar and Dabanwala, where in good years the *kahu* cane produces as much as 384 *sers pakka* to the *kanal*, or 96 maunds an acre.

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Crops of the Batala Tahsil—

Sugarcane.

The produce of unirrigated cane is of course less, but in one or two of the most favoured villages of the Riarki tract, it is reputed to run to a maund *kacha*, or 16 *sers* to the *marla* or 320 *sers* a *kanal*. The principal kinds of cane grown are the thick-stalked, broad-leaved *kahu*, which is planted mainly on canal-irrigated land, but is beginning to extend to *chahi* and *sailab* lands as well. The outturn of juice from this cane is very large. It requires a great deal of water, and so is not suitable for ordinary *barani* or *chahi* soil." This account is not now accurate. *Kahu* cane is little grown owing to its softness and delicacy and liability to attacks by insects and animals. It has been replaced mainly by *katha* or a hybrid known as *kahu-katha*. It is a curious fact that canes introduced into the Punjab tend to become thin and fibrous after a series of years. The variety mainly grown on well-lands is that locally known as the *dhaulu*, a fine cane with a white stalk and broadish leaves, though these are not so broad or the stalk so thick as those of the *kahu*. On *barani* soils the *katha* variety, a shorter and thinner cane, with narrow leaves and a reddish coloured stem, is chiefly cultivated either by itself or mixed with *dhaulu*. The outturn of juice is, as a rule, smaller than that from either of the other two varieties, but it is a hardier cane, and on good soils yields *shakkar* instead of *gur*. *Khand* is only manufactured on the Beas Bet and some of the adjoining Bangar villages. The juice is sold to the Srigobindpur traders, who convert it into *khand* (raw sugar) in the usual way at that town during the months of April, May and June. *Pona* is only grown for eating round Batala and some of the other towns.

The *rattoons*, about 8 inches long, are cut fresh, either from standing patches of cane, or more usually from stalks which have been buried for some weeks. The former practice is only followed in the case of *dhaulu*. *Katha* has a much harder skin, and requires to be buried for some time to allow this to soften, so that the young shoot may come out freely. They are sown about 12 inches apart in one furrow, the sower pressing each *rattoon* in with his foot as he throws down the next. The plougher follows and turns over another furrow parallel to that in which the cane has been planted, and so covers the *rattoon*. The whole field is then levelled with the *sohaga*. The cane tops (*ag*) are never used for planting in this tahsil, but when chopped up and mixed with *senji* form the main food of the cattle from December to February. The planting goes on all through March and the early part of April, and the manuring is done in the end of February and early part of March. Rain at this season is most

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essential to ensure a good crop, and on irrigated lands a good shower or two at the end of May or beginning of June is most beneficial and brings on the young shoots. Weeding and hoeing are carried on as often as the people can find time all through the early hot weather until the canes grow too high to admit of this. The weeding interferes with the getting in of the *rabi*, and the wheat is often damaged by rain or fire by being allowed to lie long on the threshing-floor. Cutting commences by about the 10th of November, and from that time up to the end of March the sugar-mills are busy day and night. Wooden-mills used to be universal, but hardly one is now to be seen. Iron roller-mills were introduced in the late eighties and found immediate favour, so that there were in 1889 1,667 of these mills at work in the Batala Tahsil, as against 1,651 of the old wooden pattern. The only advantage of the wooden over the iron-mill is that it does not break and spoil the *pachhi* or cane-fibres required for well ropes, though the people say that the juice was also clearer and cleaner from the wooden machine. The iron-mill can be worked with two pairs of oxen and two boys, or a woman and boy. The old wooden mill required four yoke of oxen and five men at least, and the labour of twisting and pushing through the canes was great, and often dangerous, while the men employed on it had to be freely fed with the raw juice to keep them up to the work. Both mills can work out about a *kanal* or one-tenth of an acre of average cane in the working day of 8 *pahars*, so that it can readily be seen what a saving of trouble and expense has resulted to the people from the introduction of the iron-mills. The cost of these has fallen from Rs. 80 in 1885 to a price which varies from Rs. 20 to Rs. 70 (according to quality and number of rollers) at present.

The true *barani* cane is almost all grown in the Riarki tract of the Bangar circles of the Batala and Gurdaspur Tahsils to the north of the Batala-Srigobindpur road and to the east of the Kasur branch, and in a few villages in the extreme north of the Eastern Nahri. The rest of the unirrigated cane in the latter circle and in the Bet Ravi is grown on *sailab* lands. The finest cane is grown in the Nahri circle and in parts of the Bangar. The percentage of area is highest in the Bet Ravi circle, but the cane is not so good.

Other crops in Batala.

87. The other kharif crops may be passed over briefly. The bulk of the area is under rice, maize, moth, mash and fodder for cattle. Most rice is grown near the two rivers, and especially in the low-lying Kiran lands. *Jhona* does well in the southern

villages of the Nahri circle and on the Kiran; elsewhere *dhan*, a poorer variety, is sown.

Other crops in Batala.

The average area under *chari* and fodder crops is noticeably large. Except in the Bets of the two rivers there is very little grazing ground, but apart from this there is a great demand for fodder from the non-agricultural classes and in the towns, where *chari* finds a ready and profitable sale.

Mash is grown mainly in the east of the Bangar circle and on the Dhaia, the Riarki tract being especially suited to it. The grain is in much demand for the favourite dish of "kedgeree," and is largely exported to Jullundur and elsewhere.

Moth does well in the sandy villages on the ridges in the Bangar, and near the Dehr Chhambh and Kiran.

The oilseeds are *til* and *toria;* the latter is an extra kharif crop, and is mainly grown where the irrigation is copious. The *til* is grown with *moth* and *mash*, and very rarely as a separate crop. It pays well as a ready-money staple, and has increased in popularity during the last twenty years.

Cotton is not a common crop, and only occupies two per cent. of the total cultivated area. The reason why it is not more grown seems to be that it is sown and requires attention just when the cane demands all the energies of the farmer; and as it occupies the land for the same period, and can only be successfully grown under similar conditions as to soil, rainfall and cultivation, he naturally prefers to keep his land for the more valuable staple, and only grows enough cotton for home consumption.

Of the *rabi* crops wheat is by far the most important. The average percentage of area under this crop—26—appears comparatively small, but it must be remembered that the main staple in the Eastern Nahri and Bangar circles is *bherrara*, a mixture of wheat and gram, which occupies 25 and 18 per cent. of the area in those circles, respectively. The bulk of this mixed crop is wheat, as the gram is grown on the off-chance of a very dry spring; so that wheat more truly represents about one-third of the total area harvested.

In the Bangar and on unirrigated lands generally the country red wheat (*lal kanak*) is grown, and the beardless English wheat or *mundli*, as it is called, is beginning to find favour in parts, but is not so common here as it is in Pathankot. Where irrigation is easy, and especially in the Fatehgarh direction, *vadanak* is

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Other crops in Batala.

much sown, but the grain generally sells for a *ser* in the rupee cheaper, and the flour is said not to have the same muscle-forming properties as that of ordinary red wheat. Very little barley is grown, and what there is is mostly a *vadh* crop, following rice or maize in the three western circles where irrigation is most extended. It is largely used for fodder. *Goji* (wheat and barley) and gram are not thought much of. *Bhejar* (barley and *massar*) does well in low-lying lands, and is the first crop tried, as a rule, on new alluvion.

Contrary to the practice further down the Manjha hardly any rape is grown. The heavy showers we have in February, when the crop is in flower, are said to prevent its being a success, but what little is grown in the eastern Bangar seems to do well.

Senji is the main fodder raised, grown in moist land either by itself or amongst the standing cotton stalks. *Maina*, another form of trefoil, grows self-sown on canal-irrigated lands. A great deal of *senji* is sown throughout the tahsil and near towns is freely sold.

Crops of the Gurdaspur Tahsil.

88. As to the character of the staples grown and the system of farming, the remarks on Batala apply to Gurdaspur. Cane is still the most profitable crop, though rice commences to compete for first place. In the south of the tahsil near Ghuman the cane is quite equal to that of Batala, but in the north the quality falls off. The *katha* and *dhaulu* varieties are grown everywhere. 17,000 acres of cane are grown in each tahsil, but of this 43 per cent. is unirrigated in Gurdaspur against 9 per cent. in Batala.

The chief varieties of rice grown are *begami* (a fine white variety), *jhona* (a large coarse-grained staple mainly cultivated on canal and chambh lands), *munji* (a coarse red kind), and *sathi* (a very poor quality). Some *basmati*, a fine scented white rice, is still grown near Talibpur Pindori and in some other villages, but it is rare, and does not do so as well as in Kangra or Pathankot. The maize of both Bet circles is very good, and the staple appears to be still growing in favour.

Til is largely grown in the Nahri and Maira Kiran circles, and does well on light *maira* soils.

The red wheat is the chief variety, but to the north of the tahsil the beardless or English kind is common. The *vadanak* or giant wheat is not much grown. The other staples do not call for special remark.

Crops of the Shakargarh Tahsil.

89. The absence of canals accounts for the higher proportion of rabi crops in the Shakargarh Tahsil. The relative excess

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Crops of the Shakargarh Tahsil.

of kharif crops in the Paintla is due to the greater amount of rice and cotton grown there.

The area under cane is less than in the other plains tahsils, as very little of this can be grown in the Bharrari. It does wonderfully well in the Darp, however, and some of the Bet villages adjoining that circle. The varieties grown are the *dhaulu* and *katha*. The total area is 11,000 acres, but of this over 98 per cent. is recorded as unirrigated against 43 per cent. in Gurdaspur and 9 per cent. in Batala ; this clearly shows the different character of the tract.

The area under cotton is much larger, as might be expected, since this crop does not require such constant irrigation as cane. It does very well in the Bharrari in good years, and the staple is finer than that grown elsewhere in the district.

The area under maize has increased enormously since 1865, and the crop now represents one-fifth of the whole kharif harvest.

Rice is of course less grown than in Gurdaspur, as there is no canal. A good deal of *begami* is cultivated in the Paintla Rohi lands, but elsewhere the poorer varieties only are grown.

Millets and pulses naturally predominate in the Bharrari, a special feature of which circle is the large area under *bajra*, some 5,000 acres, although this is a grain which is hardly cultivated at all elsewhere in the district.

Of the rabi crops wheat is the most important. The crop does very well in the Bet, where 40 per cent. of the area is so cultivated. The ordinary variety grown is the common country red wheat, which does best without irrigation where the air is not naturally moist.

In the other circles the area of wheat is not so large, and in the Paintla and Darp a good deal of barley and wheat and barley is grown as a second crop after rice, &c., while in the Bharrari the insecurity of the seasons renders necessary a large resort to the inferior but hardier grain.

Gram and wheat and gram curiously enough are hardly grown at all. Probably the clay soils in the Bharrari do not suit the crop.

Fodder for cattle is increasingly grown, but it does not bulk so largely in this tahsil as in Batala and Gurdaspur owing to the larger grazing-grounds and the absence of towns.

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Crops of the Shakargarh Tahsil.

Of the other crops there is not much to be said. Little *til* is grown, though it is a very favourite crop across the river. The soils are probably either too moist or too stiff to suit it. Rape is not in favour, but a good deal of its congener, *toria*, is grown in the kharif. Little hemp is cultivated for want of moisture in the air, and there are no special crops such as are to be found in the Pathankot Tahsil.

Double-cropping and failures in Pathankot Tahsil.

90. One feature in the returns which attracts notice is the very large double-cropped area which stands at 113 per cent. as against 109 in Gurdaspur and 108 in Batala. In the Andhar and Pathanti this rises as high as 141 and 131 per cent., respectively. This result is of course mainly due to the large proportion of the area in these circles which is irrigated by private canals, on which the rice crop is ordinarily followed by a poor crop of wheat, barley or sarson. This fact also explains the high proportion of kharif crops grown, which is larger in this tahsil than in any of the Cis-Ravi sub-divisions. The percentage of failure is also higher in Pathankot, and rises to 19 per cent. in the hill circle, a result which is largely due to the attempts to take crops off the most inferior soils, and to frequent failures of the rice crop. Except in this and the Kandi circle, however, the crops are fairly secure, and, considering the large extent to which double-cropping is carried, the percentage of failure is small. In the hill circle a serious failure of one or other harvest must be looked for at least once in four years.

The figures for the tahsil are interesting as proving that double-cropping is not always a sure index of great productive capacity. It is carried to an extraordinary extent here, and yet the gross outturn per acre in the year is certainly much inferior to that in Batala where the *ekfasli* system is mainly practised.

The percentage of cane has fallen, and practically none is grown in the hill circle. The only variety cultivated to any extent is the thin-stalked *katha*. The crop is as a rule a poor one, and the average outturn of *gur* is not one-half what it is in Batala or even in Gurdaspur. The average price paid by the Sujanpur Sugar-works Company amounted to Rs. 22-9-1 an acre twenty years ago, and that paid for the five years ending 1908-09 was only Rs. 31-3-0 an acre.

Yields.

91. As might be expected from the varying characteristics of the tract, the yield of the different crops varies enormously not only in different parts of the district, but also for different classes of soil, and any attempt to strike an average for the

Yields.

whole district or for any one tahsil would only have misleading results : as it is, the outturn fixed for each assessment circle in the assessment reports of the recent Settlement can only be rough averages, and the actual yields vary greatly even from one village to another in the same circle. The table below shews the highest and lowest yields fixed at the recent settlement for the chief crops grown :—

Crop.	HIGHEST.	LOWEST.
	Maunds.	Maunds.
Rice	20	4
Maize	15	3½
Mash	7	1½
Moth	5	3
Til	4	¾
Cane	29½	10
Cotton	6	1½
Wheat	21	2½
Barley	..	..
Wheat and barley	14	2½
Gram	9	2
Wheat and gram	12½	2
Barley and gram	12	2
Rabi oilseeds	5	1

The yields are generally highest in the irrigated circles of the Gurdaspur and Batala Tahsils and universally lowest in the hill circle of the Pathankot Tahsil which contains the worst class of unirrigated soil in the district. Details will be found in the various assessment reports.

Decrease of cultivation

92. The cultivated area of the district was 819,528 acres in 1872, 837,207 acres in 1891 and 824,202 acres in 1911. The decline in cultivation during the last 20 years is therefore 1·5 per cent. In the highly-cultivated tahsils of Gurdaspur and Batala there is little room for extension, and in the former there has been practically no change since 1891 : in Batala there has been a small increase. But in Shakargarh and Pathankot there have been decreases of 5·8 and 3·2 per cent., respectively : all the circles in these tahsils contribute to the decline, but the main cause has been the destructive action of rivers, chiefly the Ravi, and the continued formation of ravines in the Bharrari of Shakargarh. Unless the last-named tendency can be stopped by the construction of 'bands' at points where danger threatens, or otherwise, further decline in cultivation in the Bharrari must be expected.

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Agricultural improvements

93. The following note on agricultural improvements and the Gurdaspur Experimental Farm has been kindly furnished by Mr. Southern, Deputy Director of Agriculture, Punjab :—

"A District Agricultural Association has recently been formed, composed of leading landowners of the district and Presidents of Co-operative Credit Societies. The Association meets every six months at the Gurdaspur Experimental Farm, when the work undertaken by members during the past six months is discussed and fresh work is allotted. An Agricultural Assistant has been placed at the disposal of the Association by the Agricultural Department, and his duty is to visit members and help them as far as possible, explaining the use of new ploughs, methods of cultivation, etc.

The Association is confining its attention at present mainly to a trial of improved agricultural implements and selected wheat seed. The Agricultural Department supplies ploughs and harrows free on loan to members and selected seed at slightly over market rates. The implements are winning popularity, and one bank has already purchased some of the more expensive ploughs and harrows for the use of its members, while another is stocking cheap ploughs for sale. The selected wheat seed has also done well, and Co-operative Credit Societies are now discussing how they can commence the business of starting seed farms for the supply of selected seed to their members.

Members are shown round the Experimental Farm at each half-yearly meeting and so keep in touch with the work going on there. A tube well, which has recently been sunk on the Farm and from which the *chahi* area is irrigated, has aroused much interest. This well gives a discharge of 22,000 gallons per hour, sufficient to irrigate 150 acres of land. A more efficient type of pump and engine than is in use at present is being obtained, and if this proves satisfactory, some members intend to sink similar wells co-operatively in their villages. In a district like this where the co-operative credit movement has made such headway, it is a hopeful sign that Co-operative Credit Societies are interesting themselves in the work of agricultural improvement and working hand-in-hand with the Department of Agriculture for that end."

Experimental Farm.

94. At Gurdaspur itself an Experimental Farm of 100 acres under the management of the Agricultural Department was opened in October 1910. The Farm is divided into tow distinct areas—50 acres of *chahi* land and 50 acres of *barani*. On the *chahi* area the main subject of experiment is the sugarcane crop, and an effort is being made to improve this by the introduction of better varieties of canes from other parts of India and exotic varieties from other countries. Punjab canes are also being grown on the Madras Sugarcane-breeding Station, where seedlings are being raised with a view to crossing them with better varieties and obtaining hybrids, which will prove superior to the present canes. The problem of cane improvement in this district, where the canes are very thin and fibrous would appear at first sight easy, but with a climate so unsuited to cane-cultivation, with its extreme dry heat in the summer and frost in the winter, is by no means simple.

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On the *barani* area the possibility of increasing the fertility and moisture-holding capacity of soils is under investigation. From the results of the first three years' work it appears that the productivity of *barani* soils can be greatly increased by means of furrow-turning ploughs and spring-tined cultivators. The method of the cultivation which has given the best results is as follows :—

" With the help of the winter rains the land is ploughed up and the soil completely inverted to a depth of 5 or 6 inches, after which the land lies open and receives the beneficial action of the hot weather sun. When the monsoon breaks the soil is thus able to absorb all the rain and surface-wash is prevented. During the monsoon the spring-tined cultivator is constantly worked after rain to conserve moisture, remove weeds and consolidate the seed bed, and thus the land is in an excellent state of tilth when sowing time comes round. By this means *barani* wheat yields have been very greatly increased.

Seed-selection of wheat is also being carried out on the *barani* area. A survey has been made of the district wheats, and the different varieties commonly grown mixed in the district have been separated out and the pure strains tested alongside each other. The two varieties which have so far proved best are now being distributed to Co-operative Banks for propagation on seed farms and distribution to members."

Land Improvement Loans Act.

95. The facilities offered by the Land Improvement Loans Act are taken little advantage of in this district: a few loans are granted annually for the sinking of wells, but ordinarily the people are well enough off to be able to arrange for carrying out small improvements without assistance; for larger improvements, such as embankments, drains, etc., they will always look to Government or the District Board to do the work, and to pay for it. During the last ten years no loans have been given for any purpose but well-sinking.

Agriculturists Loans Act.

96. Similarly the stability of agricultural conditions in the district lead to few loans under the Agriculturists Loans Act being granted; when the rains fail and the advantages of the Act are brought specially to the people's notice, there is plenty of readiness to take loans: this was especially the case after the very poor monsoon of 1907. Recoveries under both Acts are easily made.

Agricultural banks.

97. The first agricultural co-operative societies in the Gurdaspur District were started early in 1906 : by March in that year there were 65 at work, and from the beginning they promised well, their foundation being in all cases due to the intelligent and spontaneous approval of the people. The Batala and Gurdaspur Tahsils led the way, and the history of their societies has been one of unbroken progress. An inauspicious start was made in the Shakargarh Tahsil in 1907 owing to the misguided zeal of a Tahsildar; but this was subsequently rectified, and a fresh start made a little later. Up to 1909 the societies, though among

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the best in the province, did not increase in numbers; in the year 1909-10, however, no less than 97 new ones were founded, and a District Central Bank was started to give them financial assistance. By July 1911 the number of societies had reached 202, the largest being Bham, with a capital of Rs. 49,000, but their expansion had been considerably retarded by unfavourable harvests and the difficulty of financing the youngest even with the help of the Central Bank. Hence the next year was marked by the foundation of the four union banks of Gumthala, Kala Afghanan, Bham and Bhaini Milwan: they started with a capital of two lakhs, and embraced half the societies in the district. These Union Banks have become the special feature of the co-operative movement in the district: they have not conflicted with the Central Bank, but have facilitated the foundation of many more societies than could otherwise have started. In 1912-13 no less than 277 new societies appeared, and 3 more Unions began operations. In point of numbers the district is now first in the province, and in spite of considerable opposition from money-lenders, the prospects of the movement are excellent.

Indebtedness of cultivators.

98. So far as secured debt goes, the solvency of the people and their improved financial position generally is well illustrated by the following extract from the Settlement Report of 1912:—

"The principal figures for land sold since last settlement and now held under mortgage are shewn in the margin. Sales are not abnormal: the area mortgaged has increased from 18 per cent. to 22 per cent. only since last settlement, but more than half of this is in the hands of other agriculturists.

Tahsil.	Sales since last settlement.		Mortgages now existing.	
	Percentage of cultivated area.	Average price per cultivated acre.	Percentage of cultivated area.	Average price per cultivated acre.
		Rs		Rs.
Batala ..	6	101	18	99
Gurdaspur ..	6	96	21	87
Shakargarh ..	2	104	26	86
Pathankot ..	6	65	23	45
District ..	5	100	22	83

The burden of agricultural debt, however, is best gauged by a comparison with redemptions of mortgages. In the first ten years after last settlement mortgagors were able to redeem an area equivalent to only 60 per cent. of the area which had been mortgaged during the same period. There has been a sustained improvement in this figure, until, in the quinquennium just closed, we find 7 per cent. of mortgaged cultivation redeemed as against 6 per cent. only mortgaged in the same period. If this process continues, as may reasonably be expected, a progressive decrease in mortgaged area may be looked for.

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The increase in redemptions and the fact that the price of land has not only kept up but increased may safely be attributed in part at least to the beneficial effects of the Alienation of Land Act, the blessings of which are freely acknowledged by the agricultural classes."

Indebtedness of cultivators.

If this were all, the district might well be congratulated on its prosperous condition generally as regards debt; but unfortunately there is a large floating debt, and the effect of the Land Alienation Act has been to increase this: the cultivator must have ready money, and if he cannot easily mortgage the land, he will raise money on his crops, his family jewellery or his personal security, if this is sufficiently good or the lender is complaisant enough. An attempt was made at last settlement to ascertain the amount of floating debt in each village, but the figures were, not unnaturally, so hopelessly unreliable that they were discarded. In many villages there are poor and unsophisticated land owners who are practically serfs of the money-lender: the latter will take the whole of his victim's crops and will allow him a mere pittance for necessary expenses, while at the same time he takes advantage of his debtor's ignorance to credit him with what he chooses in partial satisfaction of the principal sum owing or the interest thereon. Among the Rajputs especially, quite apart from the ruinous expenditure on marriages, which is really forced upon them, the carelessness displayed about accumulating debts is amazing. In Shakargarh where many of the Hindu Rajputs have large holdings their lands have been encumbered to an extraordinary extent: the process started no doubt largely owing to a feeling that the mortgagor (for the Rajput is very reluctant to sell outright) had more than sufficient land for his maintenance. But the ease with which debts are run up is by no means a characteristic of the Rajput alone. It is shared by every caste, and there are few villages in which a greater or lesser number of the land-owners are not under a burden of debt, secured or unsecured. Nevertheless, it is certainly true that the average cultivator is slowly emancipating himself from the mortgagee, and the increasing freedom of the land from encumbrance is a satisfactory feature of the present position of the agriculturist.

Interest.

99. Rates of interest over the district vary according to the means and position of the borrower and the security offered. In the plains the ordinary rate is Rs. 2 per cent. per month or 24 per cent., but it may go down to half or even a quarter of this, if the borrower is of good status: if jewellery or other movable security is pledged, the interest will usually be 8 annas, or 6 per cent.; this compares very favourably with the 25 per cent. charged by the English pawn-broker. Another common rate for floating debt is one pice per rupee per mensem equivalent to 18¾ per

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Interest.

cent. in the hills, this is the most favourable rate a borrower can expect, and up to double this interest may be taken from clients who are much involved or belong to the depressed classes. The interest for the period for which the loan is taken is deducted from the amount actually paid out to the borrower. Thus for a loan of Rs. 50 for six months at 24 per cent. the borrower will only get Rs. 44. Grain offered in payment of a loan is not credited at the prevailing market rate: the lender will only take it at, usually, 2 seers more than the market rate. Thus with grain at 16 seers per rupee (as between *zamindar* and *bania*) the borrower in return for 20 maunds will only be credited with Rs. 44-7-0 instead of Rs. 50 : and the reduction may amount to double this rate. The new Co-operative Credit Society in the hills lends money at 12½ per cent., and such is the readiness of the people to resort to it and their confidence that the return of the loan will not be rigidly insisted on if there is real inability to pay that they prefer to take *takavi* at this rate instead of taking Government *takavi* at 6¼ per cent.

Live-stock.

100. The following account of the live-stock of the district has been mostly obtained from the report prepared by Mr. Emerson as material for Mr. Stow's pamphlet on "Cattle and Dairying in the Punjab, 1910."

Cattle-breeding.

101. Gurdaspur is essentially an agricultural rather than a pastoral district, and in a tract so densely populated conditions have never been favourable to cattle-breeding. Only in a few scattered tracts, such as the Kahnuwan Chhamb in the Gurdaspur Tahsil, the hill circle of the Pathankot Tahsil and the villages surrounding the Dehr Chhamb in the Batala Tahsil, and the Bharrari circle of Shakargarh, are there grazing areas large enough to tempt the cattle-breeder, and even these tracts (except the Bharrari, where the Gujars breed for themselves) are used more by itinerant graziers than by local breeders. During the cold weather the Gaddis and Gujars of the Chamba State bring their cattle into the Pathankot Tahsil, and during the same season Gujars from the Gujrat District graze their cattle in the Chhambs of the Gurdaspur Tahsil. There are no classes of professional graziers permanently resident in the district, for, although Gujars form 5 per cent. of the population, the natural fertility of the soil induced them at an early stage of their local history to give up their pastoral pursuit in favour of agriculture, and they are now as careful farmers as any of the purely agricultural tribes of the district. Nevertheless they still retain their traditional inclination towards cattle-keeping, and the herds in Gujar villages usually out-number those found elsewhere.

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Changes in live-stock.

102. The figures for the last three enumerations of cattle are given in the table below :—

Enumeration.	Bulls and bullocks.	Cows.	Male buffaloes.	Cow buffaloes.	Young stock.
1899	165,774	158,478	75,948	63,011	197,822
1904	174,563	166,917	64,843	67,105	177,157
1909	156,597	163,604	70,628	76,742	158,600

The census of 1909 was taken after favourable spring rains, immediately following a series of bad years, so that with no marked scarcity of fodder in the neighbouring districts there were fewer extraneous cattle present than usual, whilst previous scarcity had reduced the purely local stock. Deductions from a comparison of the figures can therefore be only very general, but there is a clearly defined tendency for the milch-buffalo to increase and for the male and young stock to decrease. The decrease in the number of cows is due to their replacement by the more productive milch-buffalo. This decrease is, under normal conditions, unlikely to continue at the same rate, but the general remarks made above suggest that so long as the prices of agricultural produce continue high, the zamindars, whilst keeping a large stock of milch-cattle, will reduce their male and young stock so as to leave as much land as possible available for the raising of the more valuable non-fodder crops. Under these circumstances, home breeding is not likely to extend, nor are special efforts to this end likely to meet with any measure of success, as there is no scope for the extension of grazing areas without throwing out of cultivation valuable agricultural land.

Prospects of home breeding.

Breeding.

103. There are at present 27 Hissar and 6 Jhelum bulls in the district, all of which have been supplied by the District Board and which are handed over to zaildars or other responsible persons and under their general supervision allowed to wander about from village to village. The only other bulls are those let loose by charitably-inclined Hindus and bearing the distinguishing mark known as *tarsul*. As these animals are, as a rule, of inferior breed and often too old to be effective, their propagation is not to be encouraged. The Hissar bulls provided by the District Board are said to be freely used by the zamindars, but it is noticeable that in purchasing cattle themselves they prefer the smaller

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and stouter animals of the Jhelum and neighbouring districts, and this suggests that really good bulls imported from there would be still more popular. An experiment in this direction has been made by the Deputy Commissioner, and the last consignment of bulls was drawn from those districts, but too short a time has elapsed to judge the results obtained. The only purely local breed would appear to be the diminutive hill cattle found in the Pathankot Tahsil, a type which is well suited to the locality; these animals are even exported to Kangra and the Una Tahsil of Hoshiarpur. Buffalo bulls are kept by a few Gujars and Jats who charge Re. 1 for each covering. They are fiercer than the ordinary bull and could not therefore be allowed to wander about freely.

Feeding and grazing

104. There are the following grazing tracts in the district:—

Batala Tahsil—

(1) Dehr Chhamb.
(2) The banks of the Ravi and Beas rivers and the Kiran stream.

Gurdaspur Tahsil—

(1) Kahnuwan Chhamb.
(2) Magar Mudian Chhamb.
(3) The banks of the rivers Ravi and Beas and the Kiran stream.

Pathankot Tahsil—

(1) Hill forests.
(2) Plots of *banjar* in the Andhar circle.
(3) Rakh Gulpur.
(4) Nahr ki Bir.

Shakargarh Tahsil—

(1) *Banjar* in the Bharrari circle.
(2) The banks of the Ravi.

With the exception of rakhs Gulpur and Nahr ki Bir, which are Government properties, all these tracts are owned by private individuals, or village communities.

The Chhambs can generally be used only for grazing during the months of March to May, and during a portion of the cold weather, as in the summer months, they are full of leeches, and the cattle have to be kept away from them. With the exception of Kahnuwan, the Chhambs suffice for the requirements of the adjacent villages only, and in those cattle-breeding is carried on to a small extent, but little development is possible even in these

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tracts. Throughout the rest of the district natural fodder is inadequate to supply the demand, and cattle-owners have perforce to rely upon fodder crops, such as *chari*, *bajra*, *moth*, *senji*, *chaukhal*, *sain*, *sawankh*, the *bhusa* of wheat, barley, gram, *masar*, *moth* and *mash*, the *ags* of sugarcane and the stalks of maize and rice straw. Green barley is often given to cattle, and in some parts of the district the upper portions of young wheat are also given, with the object of strengthening the subsequent growth. Oilseeds, cotton seed, gram and barley are given to milch-cattle when in milk, but only the more valuable of the well and plough cattle are given grain and these only when they are in hard work, and *chari* and *senji* are not available.

In ordinary years the supply of fodder is adequate, but in years of poor rainfall there is danger of failure in the Bharrari circle of the Shakargarh Tahsil, in the Riarki and Bangar circles of Batala and in the Bangar circle of Gurdaspur. In very bad years grazing fails even in the hilly tracts of Pathankot, and the situation is further complicated there by a scarcity of water consequent on the drying-up of springs and tanks. In such years many cattle are taken to the Chhamhs and the river banks, the Bharrari Gujars drive off their cattle to the low hills of Jammu or to the moister tract of the Chak Andhar, fodder is imported from the canal-irrigated circles, and *kahi* grass and the leaves of the *palah* tree are used, but these are only temporary resources, and a series of bad years inevitably leads to the death or sale of a large number of animals.

Possible extension of grazing.

105. There is little scope for the extension of grazing grounds in a district where agriculture is so profitable, except by throwing open the reserved forests, and this is a measure which should only be adopted as a last resource.

Prices of cattle.

106. It is difficult to obtain any accurate information from which past and present prices can be contrasted, but the annexed statement is based on a full enquiry, and the comparison contained therein may be taken as fairly representing the true state of affairs. The lower price in each case is that of a very inferior animal and the higher price that of a really good one :—

Kind of animal.	Price in rupees ten years ago.	Present price in rupees.
Bullock	15 to 80	35 to 150
Cow	15 to 50	25 to 100
Female buffallo	30 to 80	50 to 150
Male buffalo	10 to 35	25 to 75

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Prices would thus appear to have doubled during the last ten years and the increase is to be attributed to the general rise in wages and in the cost of living, both of which factors especially affect credit transactions. The enhanced value of skins and hides and the increased consumption of meat consequent on an improved scale of living are causes which particularly affect the prices of inferior animals and of young stock. In this district there is little doubt that the general rise has on the whole adversely affected the zamindar; nevertheless there is no scarcity of farm-cattle and no lands remain uncultivated for want of plough or well oxen.

Dairying.

107. As a regular industry, dairying is practically unknown in this district, but everywhere the *zamindar* or *kamin*, who can afford to do so, keeps a cow or buffalo or both for providing the milk and *ghi* necessary for home consumption. The total number of milch cattle in 1909 was 240,346 only, and as the population numbers 836,711, it is clear that there are many who cannot indulge in the luxury of milk. It is in fact a very common reply to an officer, trying to impress upon the *zamindar* the advantages of quinine, that the medicine is undoubtedly good, but that it must be taken with milk and the ordinary villager cannot obtain the milk necessary. It is difficult to say how far this reply represents a rooted prejudice against quinine and how far a real scarcity of milk, but milk is probably a far rarer village commodity than is generally supposed, and this view is corroborated by the fact that in a village in the Gurdaspur Tahsil with more than an average amount of grazing, out of 151 cows and 51 cow-buffaloes, nominally capable of giving milk, only 29 cows and 11 buffaloes were actually doing so. The Rajputs and several other Hindu tribes forming a considerable portion of the population will not sell milk or *ghi*, as they consider such sales to be forbidden by the *Shastras*. The surplus stock is put aside for use at marriages and is then termed *suchcha*. If there is no immediate prospect of a wedding in the *zamindar's* house, the *suchcha* is lent to a relative—the giver of a marriage feast—and he returns the loan on a similar event occurring in the lender's family. Other *zamindars* have no prejudice against selling dairy produce, but only those who live in villages near the Chhambhs or in the Bet Beas have usually any surplus produce and their profits cannot be large. The supply of milk and *ghi* for towns is provided by resident professional dairymen, by itinerant graziers and by the *kamins* of neighbouring villages. These men generally obtain advances from *halwais* to whom they dispose of their produce at considerably less than the market rate.

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Profits from dairying.

108. It is practically impossible to estimate the profits of dairying in this district, but an attempt is made below to estimate the profits to a *zamindar* for a single cow or cow-buffalo. A cow begins to calve from 4 years and gives 5 to 8 calves. The average may be taken as 6. Each time she gives milk for about 6 months and remains dry for about 10 months. Allowing for the different classes of cows and for the varying quantity of milk given at different seasons, we may take the average yield as 2 seers a day. This will give 1½ *chattaks* of *ghi*, value 1 anna and 6 pies, taking the average rate of *ghi* to be 16 *chattaks* in the rupee. For at least five months out of the six the cow will receive both *bhusa* and gram or oil-cake, the market value of which cannot be much less than 2 annas per day. For the rest of the time she will receive *bhusa* only, valued at 1 anna a day, so that the *zamindar* is not remunerated by the *ghi* obtained for the food and fodder given. But on the profit side of his account must be reckoned the butter-milk which forms his principal drink, the dung which he uses as fuel or manure, and the young stock which he can either sell or keep for his own use, and it must be remembered that the *bhusa* and grain are grown on his own land, and that ordinarily he has the use of the village common-land for grazing.

As regards a cow-buffalo, she calves when about four years old, gives milk for about a year and remains dry for about the same period. The average yield of milk may be taken at 4 seers a day, giving 4½ *chittaks* of *ghi* valued at 4 annas and 6 pies, and the value of *bhusa* and grain given to her daily whilst in milk may be taken as 4 annas. Whilst she was in milk there would thus be a small profit on the *ghi* alone, but this would not in itself compensate for the *bhusa* which has to be given her when she is out of milk.

Prices of milk.

109. Ten years ago milk sold at 11 seers per rupee; the rate is now 9 seers only, and during the same period *ghi* has fallen from 1¼ seers to 1 seer, whilst the rise in prices is actually greater than that shewn, for pure dairy produce is now seldom found, in towns, at any rate, and adulteration is said to be more practised than ten years ago. No extension of dairying has occurred during recent years, and there is no prospect of any advance in this direction.

Goats.

110. At the last three enumerations of live-stock, the number of goats in the district was—

Enumeration.	*Number.*
1899	148,221
1904	179,481
1909	119,481

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There was thus a large rise in the first five years of the period followed by a still larger decrease in the second quinquennium. The decrease is due partly to the circumstances under which the last enumeration was taken, as described above, and partly to the fact that the lower classes of the population, who generally keep goats, have suffered most from the ravages of plague. But the figures (Table 22) will always depend mainly upon the number of these animals which the Chamba goat-herds bring down into the low hills of Pathankot to graze during the winter, retreating again to the higher hills in April. The importance of this immigration is seen in the figures for Pathankot Tahsil which contains half the total number of goats in the whole district. Elsewhere these animals are kept by Telis for milk and for slaughter.

A goat bears when a year old and continues to do so twice a year until she dies, and as each time she has from one to three kids, she is a most profitable animal to possess. She costs nothing to keep beyond the trifling wages of a herd-boy, and for 8 months in the year she yields a seer of milk per diem giving about half a *chittak* of *ghi*.

The price of milch goat varies from Rs. 5 to Rs. 25 and the average price of a kid is about Rs. 2-8-0.

The destructive habits of the goat are generally given as the reason for their not being more widely kept by the higher classes of *zamindar*, but the true cause is that these classes consider it to be beneath their dignity to keep them in any large quantities. It is not improbable that this prejudice will gradually give way before the enhanced profits to be obtained from them consequent on an increased consumption of meat and the higher prices obtained for their skins.

Sheep.

111. A sheep is valued for her wool, and at each half-yearly shearing she yields about one seer valued at 6 annas. She lambs twice a year, giving one or two on each occasion, worth about Rs. 2 each. The price of a full-grown sheep varies from Rs. 5 to Rs. 10, and has risen during recent years. An attempt was made by an employé of the Public Works Department, who has purchased land in the Pathankot Tahsil, to introduce Peshawar sheep into the district, but the ones he imported all died during the rainy season and the experiment has not been repeated. The ordinary sheep is a coarse-woolled leggy animal, generally of a very mixed breed. The Teli, who is the usual breeder of sheep, has no idea of keeping the breeds separate, and is quite content with the wool obtained at each half-yearly shearing.

Ponies.

112. There is a fair amount of horse—or rather pony—breeding in the district, and many *zaildars* and the better class

Ponies.

of *zamindars* keep brood mares, which they get covered by the Government stallions at the tahsils. There are naturally enough few ponies in the hill circle, and only a few zamindars are well enough off to keep them: here the ponies are usually poor creatures kept by shop-keepers and cost Rs. 75 to Rs. 100. In Shakargarh prices run from Rs. 100 to Rs. 150 for an ordianry riding animal to Rs. 200 and over for mares for breeding. In Gurdaspur and Batala, where the generality of the people are better off, many more horses are kept, and every *zamindar* with any pretensions to position or means has his mare. From Batala it was recently reported that there were nearly 900 persons who maintained brood-mares, but, as the enquiry was made with a view to selecting candidates for grants of land on the Lower Bari Doab Canal on horse-breeding conditions, the figures are grossly exaggerated. There are probably from 200 to 300 genuine horse-breeders in the whole district. Prices in Batala especially were also much enhanced as a result of the same enquiry, and as much as Rs. 400 were freely given for mare sworth hardly more than half that sum, by persons desirous of obtaining possession of animals with which to support their claim to be breeders. A good class *zamindar's* pony can be obtained almost anywhere for Rs. 200.

Operations of the Civil Veterinary Department.

113. There are at present 49 District Board bulls in the district. These bulls are purchased from the Hissar Farm after careful selection by the Chief Superintendent, Civil Veterinary Department, in consultation with *zaildars* who are sent to take them over. The *zaildars* and *lambardars* of the villages, in which these bulls are located, are responsible for their maintenance. The bulls roam about the fields and feed on the crops. These animals do not cost the District Board anything beyond the nominal purchase price.

The District Board maintains 8 horse and 7 donkey stallions in the district. The horse stallions are all Arabs The donkey stallions are Hissar Farm bred. The stock by both classes of sires is good.

A horse and cattle fair is held at Gurdaspur during the Dusehra. The income derived from the fair is about Rs. 1,400, which is realized from the sale price of animals at the rate of one pice per rupee. Rupees 500 from District Board funds are awarded in prizes.

Contagious diseases are very prevalent in the district. Patwaris report outbreaks, and infected animals are attended by

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Operations of the Civil Veterinary Department.

the Veterinary Assistants. The following diseases formerly caused a heavy mortality :—

Rinderpest, known as *Mogh Wah, Manno* or *Badda Dukh* by the people.

Hæmorrhagic Septicæmia (*Galgothu* or *Sangohur*).

The mortality from these diseases has considerably decreased since inoculations have been performed by the Civil Veterinary Department. Foot and mouth disease, known as *Munh Khur*, appears every year, but the mortality is only one per cent. Although the disease does not cause many deaths, it produces deformities of the feet and therefore decreases the value of animals. The people, although a little more enlightened than they were, do not attempt to prevent the spread of contagious diseases. When an outbreak occurs in a village the people merely put up a *tuna* (see paragraph 59 above). Surra occurs during the rains, but is not a common disease in the district.

Within recent years considerable progress has been made in the treatment of all diseases on modern scientific lines by the Civil Veterinary Department. In 1901 there were only three qualified Veterinary Assistants in the district, but now there are six. Five of these are in charge of hospitals at Gurdaspur, Pathankot, Batala, Shakargarh and Bhaini Milwan, and one is doing itinerating work. Four of these hospitals were built by the District Board and the one at Bhaini Milwan by Muhammad Bakhsh, *Sufedposh*. Two are being built, one at Dalhousie by Lachman Das, and another at Bham by Sardar Sahib Kishen Singh. The lectures given by the Civil Veterinary Department during the year have led to this exceedingly useful exhibition of public spirit. The work of the Civil Veterinary Department is now becoming well-known and the *zamindars* are beginning to realize the advantage of the scientific treatment of their animals.

The Civil Veterinary Department is not only dealing with contagious diseases but preventing cruelty. "Mulling" and other forms of cruelty are numerous, but the Civil Veterinary Department does its best to have animals brought to the hospitals where they get rest and treatment.

Irrigation—The Upper Bari Doab and its predecessors.

114. The irrigation of the district is drawn from the following sources :—

(1) The Upper Bari Doab Canal.
(2) Wells.
(3) Private canals and cuts from rivers and streams.
(4) Lifts from streams and tanks.

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Irrigation—The Upper Bari Doab and its predecessors.

Canals have been taken from the Ravi near its exit from the hills by the three Powers who have last ruled the Punjab. The Badshahi Nahr was constructed about the year 1633, under the orders of the Emperor Shah Jahan, by Ali Mardan Khan, the famous engineer and architect of that reign.* The canal which now bears this name is a mere remnant of the old one; it will be dealt with below.

The Hasli, so-called from its lying like a silver streak on the fair bosom of the Doab, was first constructed by the same Ali Mardan Khan, but was repaired by the Sikhs, who constructed a branch to feed the tanks in the sacred city of Amritsar. It crossed the stream running down from the hills above Pathankot by means of dams made of boulders liable to damage from every flood and requiring yearly renewal. It then struck southwards and took a course coinciding in its main direction with that now occupied by the main line of the Upper Bari Doab Canal. Below this district it has now been incorporated with the latter system, and has been converted into a distributary. For the first 15 miles of its course it is utilized as a subsidiary feeder to the main canal and also as a distributary. Elsewhere in this district it is now disused, and most of the land has been restored for cultivation to the people.

After the occupation of Lahore in 1846, surveys with a view to the improvement of the Hasli were undertaken, and it was eventually decided that the old canal must be superseded. The great difficulty to be encountered in the upper portion of the canal was found in the excessive slope of the country from the hills, the fall being as much as 200 feet in the first 13 miles. At the same time it was found impossible to take the supply from a lower point in the river. The floods of the Ravi were then thought to be too rapid to allow the construction of a permanent dam† across the main stream. It was necessary, therefore, to seek a branch which would give a sufficient supply in the rains, and into which, in the dry season, the whole body of water could be turned. Nowhere along the river bank could a branch answering these requirements be found except the branch already utilized for the Hasli Canal. The present Upper Bari Doab Canal was then projected. The minimum discharge of the Ravi being at that time

* The Western Jumna Canal for the supply of Delhi was re-made and extended by the same Ali Mardan Khan.

†A permanent weir across the Ravi was subsequently constructed in 1869-71 and the headworks were built in the river proper: the branch or creek which had formerly been used then became the head-reach of the canal.

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Agriculture.

Irrigation—The Upper Bari Doab and its predecessors.

calculated to be 2,752 cubic feet per second,* the regulator at the new works was constructed to admit into the canal a supply of 3,000 cubic feet. The headworks are opposite the village of Madhopur at a short distance above those of the Hasli, but the channel, instead of running like that of the old canal for nearly 2½ miles under the bank of the river, here 60 feet in height, strikes off southwards almost at once, with a fall of 6½ feet in the first mile. The branches into which the canal divides are altogether four in number. They are called respectively (beginning from the east) the Sobraon Branch, the Kasur Branch, the Main Branch Lower, and the Lahore Branch. The Kasur Branch strikes off the main line at Tibri in the 30th mile of the canal's course, flowing on nearly due south, while the Main Branch turns towards the south-west and follows the water-shed to the west of Kasur Nala. Seven miles further the Kasur Branch sub-divides, one branch following the line of country between the Patti and Kasur Nalas, the other (the Sobraon Branch) continuing southwards between the Patti Nala and the Beas. Both these branches eventually end in the old bed of the Beas. The main line continues undivided till in its 53rd mile. At Aliwal, close to the border of this district, the Lahore Branch is taken off, but this and the Main Branch pass into the Amritsar District almost immediately.

Irrigation and crops on the Upper Bari Doab Canal.

115. The Upper Bari Doab Canal irrigates from 44 distributaries in this district, but water is given in the *kharif* only, except in a few villages on the Amritsar border which are irrigated in both harvests from distributaries belonging to the perennial system of that district.

Besides this, however, the Fatteh Nangal, Kot Karm Chand, Kunjar and Fattehgarh distributaries, although classed only as *kharif* distributaries, are always opened once during the cold weather, to give waterings to wheat in the lower part of Gurdaspur and in the Batala Tahsil.

Rabi irrigation was finally curtailed in 1889, and in 1901 a petition for the restoration of *rabi* irrigation was sent up from a body styling itself "The Public Grievance Committee"; but the original orders were upheld. The people claim a prescriptive right to the Ravi water on historical grounds; not only is this claim untenable, but also there is no doubt that it is in the best interests of the people themselves from the point of view of health and the prevention of water-logging—the evil

* The discharge in the river at Madhopur is now known to fall much lower than this: its usual winter minimum is about 1,800 cusecs.

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results of which are only now being remedied in the Amritsar District—that canal-irrigation should be restricted as far as possible : as it is, swamping is not uncommon in several parts and the water-table is decidedly high.

Irrigation and crops on the Upper Bari Doab Canal.

The total acreage recorded as irrigated by the canal in this district is given in the table in the margin, which also contains the average figures for actual irrigation over a series of years in each tahsil : the recorded area is that entered as *nahri* in the recent settlement, the orders being that any field which had been canal-irrigated twice during the last four years or which was then irrigated should be entered as *nahri ;* a number of first waterings are given for wheat in the Gurdaspur and Batala Tahsils, and fields double-cropped, *e.g.*, fields re-sown with *rabi* crops after a rice crop has been reaped, are counted twice over in the last column of the table : this *dofasli* area is deducted from the figures of area actually irrigated, but is included in those for area of crops matured. The area actually irrigated is less than the recorded area partly owing to fallows, partly because a field irrigated in one year may the next year be sown with a crop which does not require irrigation, and partly because in wet years the area for which canal irrigation is taken naturally contracts.

Tahsil.	Recorded area.	Actually irrigated.	Area of crops matured.		
			Kharif.	Rabi.	Total.
	Acres.	Acres	Acres	Acres.	Acres.
Gurdaspur	24,086	17,859	15,183	8,084	23,267
Batala ..	29,350	24,289	18,443	11,847	30,290
Pathankot	6,493	5,150	4,900	3,855	8,755
Total ..	59,929	47,298	38,526	23,786	62,312

The percentages of the chief canal-irrigated crops are shewn in the table in the margin.

Crop.	Percentage.
Rice	30
Maize	8
Mash	2
Cane	18
Cotton	2
Kharif fodder crops	2
Other *kharif* crops	2
Wheat	13
Gram	4
Wheat and gram	4
Massar and barley and *massar* ..	5
Senji and other fodder crops ..	5
Other rabi crops	5
Total ..	100

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Agriculture.

System of levying canal revenue.

116. The history of the system of levying water-advantage rates both on wells and on the canal is set out in paragraphs 26, 28 and 61 of the 1892 Settlement Report. Before that settlement a separate water-advantage rate and a water-rate or occupiers' rate had been levied,* but during the course of the settlement in 1891 it was decided to amalgamate the two into a single set of occupiers' rates and at the same time to place some additional revenue on canal lands in the form of a fixed assessment: this was to be treated as land revenue proper, but the Irrigation Department was to receive book credit for the full amount. This decision was arrived at too late for it to be carried into effect in Batala Tahsil, but in Gurdaspur and Pathankot a slightly higher rate was assessed on canal lands than on the better class of *barani*. In the recent settlement the whole question came up again for discussion, but the principles to be adopted had been settled by orders from the Government of India in the case of the Western Jumna Canal before the first assessment report of this district was submitted. It was finally decided that the schedule of occupiers' rates should remain unaltered, and that a mild wet assessment should be imposed on land recorded as *nahri*; this in practice amounted to a continuation of the system introduced at the previous settlement in the Gurdaspur and Pathankot Tahsils. A fixed wet assessment therefore was levied on *nahri* land: the excess of the rate on *nahri* over that on the better class of *barani* varies from annas 8 to Re. 1 in the different assessment circles.

The schedule of occupiers' rates which remained the same, though liable to enhancement at any time in the future, irres-

* Before 1870-71 occupiers' rates were levied at Rs. 2-6-8 for flow and Re. 1-3-4 for lift per acre, irrespective of the crop grown. In 1870-71 new rates were imposed as under:—

Class.	Crops.	Flow.	Lift.
		Rs. A. P.	Rs. A. P.
I	Cane	6 0 0	3 0 0
II	Rice and gardens	4 12 0	2 6 0
III	Sundry crops	2 8 0	1 4 0
IV	Ditto	1 8 0	0 12 0
	Single watering on fallow	0 12 0	0 6 0

pective of the term of settlement, is as given below:—

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Class.	Crop.	Rates per acre. Flow.	Lift.
		Rs. A. P.	Rs. A. P.
I	Sugarcane	7 1 0	3 8 6
II	Rice	6 0 10	3 0 5
III	Orchards, gardens, tobacco, vegetables and melons.	4 8 8	2 4 4
IV	All dyes, fibres and oilseeds, all *rabi* crops except gram and *masar*.	3 12 6	1 14 3
V	All *kharif* crops not specified above, gram and *masar*, all fodder crops.	2 12 5	1 6 2½
VI	Special rate, a single watering before ploughing for *rabi* followed by a *rabi* crop.	2 0 4	1 0 0
VII	A single watering before ploughing not followed by a crop. Crops sown on the *vadh* of a previous crop ..	1 0 2	0 8 1

There is no lift irrigation in the district.

117. Well irrigation is practically confined to the Batala Tahsil, to the southern half of the Gurdaspur Tahsil and to the Darp circle in Shakargarh. Elsewhere the rapid slope of the country, the depth to water and, in Pathankot, the greater rainfall and the stony nature of much of the soil renders well irrigation generally impracticable. The depth to water varies from a few feet in riverain tracts to as much as 75 feet in the Riarki tract of Batala Tahsil. In the uplands of the Bharrari of Shakargarh Tahsil the average depth is 50 feet, in the Dhaia Chhamb tract it varies from 30 to 40 feet, and in the rest of the district the depth is from 25 to 30 feet. The number of wells in each tahsil is given in the margin. In the Riarki tract of the Gurdaspur and Batala Tahsils the depth to water is great, and in these parts, though wells are frequent enough, and indeed have much increased in number of late years, they are

Wells.

Tahsil.	Number of wells. Masonry.	Unlined.
Gurdaspur ..	1,427	884
Batala	4,334	126
Shakargarh ..	1,109	1,301
Pathankot ..	31	402
Total ..	6,901	2,713

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normally used merely to start the cane, and to supplement a scanty or ill-timed rainfall in the wheat lands. In the Darp of Shakargarh, also, beyond being used to start maize, cane and cotton and to give an occasional watering to wheat, masonry wells are not systematically worked to anything like their full capacity.

The generous rainfall obviates the necessity for this, but at the same time the holdings are so small and the margin of subsistence so limited in the irrigated part of the circle, that a scanty monsoon or failure of the winter rains would bring the people perilously near to famine if they had not their wells to fall back on. As a form of insurance, therefore, well-sinking is only an act of ordinary prudence. Well irrigation, therefore, is only regularly required in the Nahri, Maira Kiran, Bangar and Bet Ravi circles of Gurdaspur and Batala. In these it is used mainly for cane, cotton and maize during the hot weather and to a small extent for rice and *mash* and for wheat, *senji* and garden crops during the cold. Irrigation from *kacha* wells is carried on entirely for market gardens by Arains and village menials, usually near the village site or in the bed of a stream. The area irrigated will always depend largely on the amount of rainfall, to which the *zamindar* can usually look with confidence to relieve his well bullocks for an appreciable period in the winter. The full extent of this is of course not apparent in the returns of well irrigation, since a field only once watered will be shewn as *chahi*, even though the crop is matured without further use of the well. In the three tahsils of Gurdaspur, Batala and Shakargarh* the figures given in the margin are: during the last 20 years; the well irrigated area was largest in 1899-1900 and smallest in 1906-07. It is thus apparent that well irrigation in the district varies considerably from year to year, and that it can be extended to well beyond the normal irrigable limits if necessity arises.

Tahsil.	AREA IN ACRES.		
	Ordinarily irrigable.	*Actually irrigated in past 20 years.*	
		Highest.	Lowest.
Gurdaspur ...	25,262	34,694	9,736
Batala ...	98,114	122,177	64,334
Shakargarh ...	12,240	16,818	4,986
Total ...	135,616	173,689	79,056

*The area ordinarily irrigable in Pathankot Tahsil is 390 acres only: the highest actually irrigated area was 421 acres in 1907-08 and the lowest 359 acres in 1896-97.

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Agriculture.

Cost of well-sinking.

118. The average cost of a masonry well varies according to the depth at which water is found, from Rs. 450 in the Riarki to Rs. 200 in the Bet Beas. This does not include the cost of well appliances: practically all wells in the district are Persian-wheels and the woodwork of these costs Rs. 60 to Rs. 90, while the buckets are bought at about 160 to the rupee.

Kacha wells cost nothing beyond the labour of digging them and of collecting and weaving the withy cylinders with which they are lined.

Private canals—The Badshahi Nahr.

119. The chief private canals are—

In Pathankot Tahsil—

(1) the Badshahi Nahr,

(2) the *kuhls* of the Chak Andhar,

(3) the upper and lower Chakki *kuhls*.

In Gurdaspur Tahsil—

(4) the Kalanaur cut from the Kiran.

In Batala Tahsil—

(5) the Kiran Canal,

(6) the Rahimabad cut.

In addition there are a few acres irrigated from small *kuhls* on the Ravi and Chakki in the hill circle of Pathankot and from the Gupt Ganga spring water which flows down from near Dhamrai into the Dhaia Bet Beas circle in the north of the Gurdaspur Tahsil.

The Badshahi Canal has already been referred to in paragraph 114. Its earlier history is fully given in paragraphs 37 and 68 of Mr. Dane's Pathankot Assessment Report, and it now irrigates some 7,500 acres in the Pathanti circle of that tahsil. With the construction of the headworks of the Bari Doab Canal at Madhopur, the cold weather supply of the Badshahi was entirely cut off, but after April the hot weather supply is ample: recently, moreover, a new channel, called the Salampur Minor, connecting the Salampur feeder with the Badshahi, has been sanctioned, with the object of supplementing the water in the latter between April and July in case the river runs too low for adequate irrigation of rice-sowings. The head lies among the boulders in the bed of the Ravi above Bhadrali and has to be renewed every year in March or April, so that water may be conveyed down for the rice-sowings. The water in the Badshahi is deplorably wasted by the irrigating villages, and as a result the

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Agriculture.

Private canals — The Badshahi Nahr.

lower villages were full of complaints of short supply. The whole system of management has recently been overhauled, the Committee of Management re-constituted and arrangements made for the keeping of accounts by the Mahant of the Jhakbar shrine. The people are very apprehensive of the Badshahi being taken under official control, and are strongly opposed to incorporation with the Bari Doab Canal system.

The Chak Andhar *kuhls*.

The Chak Andhar *kuhls* take off from the Ravi or Ujh and their various affluents; most of the heads are in Jammu territory, the irrigation being shared between the Kashmir and British villages: this extremely awkward arrangement led to endless disputes, and in 1896 Mr. (afterwards Sir Charles) Rivaz was appointed arbitrator. His award settled the shares mainly on the basis of existing irrigated areas, and since then disputes have happily been rare. A Mirab to manage the irrigation on both sides of the border was also appointed: he has his residence at Katuha in Jammu, and our villagers complain that he is in consequence apt to be biased in favour of the Jammu cultivators: but on the whole the arrangement works very satisfactorily. With two exceptions none of the heads are of masonry, and they are therefore always liable to be washed away by floods. The irrigated area is considerable, amounting to no less than 13,376 acres or more than half the total cultivation of the Andhar circle, and irrigation is very constant, as the water-supply, unless interfered with from above, is ample.

The Upper Chakki *kuhls*.

The Upper Chakki *kuhls* consist of the Old and New Mogali, the Sailiwali, the Anandpuri and the Daulatpuri, all near Pathankot itself. The chief of these is the New Mogali, an ancient channel cleared and re-started in 1873 by Tiloka, an enterprising lambardar of Mamun, who, associating with himself one Ram Singh of Karoli, thereupon assumed control of the water and charged *abiana*. The ownership of the *kuhl* has now devolved upon the descendants of these two men, together with L. Brij Lal, a pleader of Dharmsala. Perpetual bickerings about the amount of water taken and the rates of *abiana* charged have now, it is to be hoped, laid to rest, for some years at any rate, by the arbitration award of the Settlement Officer in 1912. The area irrigated from this *kuhl* amounts to 341 acres in Mamun and a few other villages: it also turns 14 water-mills, 13 of which are let on lease and return a considerable profit to the owners of the *kuhl*.

The remaining *kuhls* on the Upper Chakki irrigate only in the villages which bear their names.

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Private canals—The Lower Chakki *kuhls*.

On the Lower Chakki the chief *kuhl* is known as the Dhangu, which takes out about 2 miles east of Pathankot, and irrigates 18 villages including some owned by people of the Kangra District. Constant disputes led to so much curtailment of the water-supply that the Gurdaspur villages were suffering greatly. An arrangement was reached through the mediation of the Deputy Commissioner of Kangra and the Settlement Officer of Gurdaspur, and full irrigation has now been restored.

Irrigation from the Kiran.

The Kalanaur cut from the Kiran is a very old work of a primitive description and irrigates 321 acres in that town.

A small cut has also been taken from the Kiran at Rahimabad in the Batala Tahsil, and this irrigates some 500 acres of land. The Rahimabad people, who constructed the cut, do not charge any water-rate from the other villages which receive irrigation, but expect them to furnish labour for clearing the channels.

At Shikar, in the same tahsil, where the Batala-Dera Nanak road crosses the stream on a masonry bridge, regulating sluice-gates have been constructed, and immediately above the bridge a small canal has been excavated on the western bank of the Kiran by the District Board. This canal irrigates some 1,200 acres of land in ten villages of the Bet Ravi and Maira Kiran circles, as well as a considerable area in the Amritsar village of Ram Das. The usual crop is rice, and the water-rate charged by the District Board is Re. 1 per acre* matured for flow and 8 annas for lift irrigation, irrespective of the kind of crop grown. At Paddeh, a mile south of Shikar, the Kiran escape runs into the stream and both below and above this point *jhalars* are fairly common along the banks. The District Board charges *abiana* at the rate of 8 annas for every acre of matured crops irrigated by *jhalars* built since settlement betweeen the Shikar sluice gates and the village of Shakri. This is presumably levied on the ground that the building of the Shikar dam has raised the water level higher up the stream. There are, however, only three *jhalars* paying this *abiana* at present; they are all in the village of Thapla and irrigate some 30 acres.

Jhalars.

120. Besides the *jhalars* mentioned above there are a few of these lifts from the Kiran and the Dogri in the Gurdaspur Tahsil and from the Basantar *nalà* in the Shakargarh Tahsil. These water a few acres only and are quite unimportant. There are very few of the Persian-wheel *jhalars* worked by bullocks and most of the irrigation entered as *abi* is from *dhenklis* set up by Arains and village menials for their market gardens.

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*At the recent Settlement these rates were doubled.

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Fisheries.

Fisheries.

121. The following note on Fisheries has been kindly furnished by Mr. G. C. L. Howell, I.C.S., Director of Fisheries, Punjab :—

" A fairly complete list of the fish of the district, with their scientific and local names, is given below : the vernacular nomenclature, however, varies considerably in different parts of the district, and the same name is often applied to quite distinct species, so that the glossary must be used with reservations. Every species named has actualy been caught in the district.

The breeding grounds—(a) Hill species.

The most valuable* species from the point of view of the market and of sport is the *mahasir* (Barbus tor). This fish, with the *Gid* (L. Diplostomus), *Kunni* (L. dyocheilus), and various smaller species like some of the *Barrils*, Discognathus lamta, and Cirrhina latia, spawns in gravel 'redds', and its fry lie in pools with gravelly or pebbly bottoms. In this district the Chakki stream and the Chas Nalla on the Beas, and the small lateral springs between Mukeshwar and Shahpur on the Ravi are known to hold *mahasir* fry at all stages ; the Masto also is rumoured to be a spawning ground for hill species, but this rumour has not yet been authenticated.

(b) Plains species.

Most of the hill-fishes push upstream beyond the confines of the district in the summer. But if nature were unmolested, Gurdaspur would contain some of the most prolific spawning grounds for plains fishes in India, and fish would be cheap and plentiful almost throughout the district. Millions of *rohu* (L. rohita), *Catla* (C. buchanani), *Mori* (Cirrhina marigola), *Murral* and cat-fishes should be hatched out every year. The big carps, for instance, are all nearly ripe or ready to spawn by the end of May : their instinct makes them " run " upstream with the first rise of the river, as the snow water comes down, and till the end of the rains every freshet sends them higher and higher as long as they can find water of suitable temperature (about 82° F. and over) and the sandy bottoms and weed-growth which their ova and fry require. The main stream of the Ravi does not rise above 76° F. at Madhopur, and this practically marks the upstream limit of the Ravi plains species. In the Beas, which is a much warmer river, all the plains fishes are found far beyond the Gurdaspur border even as far as Talwara in Hoshiarpur. But before the spawners have reached these heights many of them have turned off into tributaries and drains like the Naumani, the Ujh and the Kiran on the Ravi side, and the Guara and Kuhl which drains the Kahnuwan swamp. They spawn anywhere where a deep pool gives them slack water, and a plentiful weed-growth.

Impediments to the run of the spawners.

Unfortunately their upstream run in the side-streams is sometimes hindered by irrigation dams, and the effect of these is most marked. The Naumani and the Khal † for instance, contain no dams which do not wash away in the rains ; some of the largest species spawn in them and the pools hold a few good fish all the year round ; the Kiran, on the other hand, which is naturally a much better stream, is practically devoid of fish life since the construction of an impassable masonry dam at Shikar. This is particularly unfortunate as the Keshopur *jhil*, in which the Kiran rises, was once the main breeding-ground and nursery of the Ravi *murral*. The Pakiwárás complete the destructive process : they kill numbers of spawners on their way up the smaller streams in nets staked across from bank to bank.

* *Mahasir* fetch a better price than *rohu* or *murral* (which latter are both better eating because it is such a beautifully coloured fish.

†NOTE.—The Khal must have been a very valuable asset to the Lahore fishermen before the Chakki waters were diverted into the Beas in 1862. It must in those days have been a breeding ground for *rohu*, etc., hardly inferior to the Barneh Cho on the left bank of the Beas.

CHAP. II-A.

Fisheries.

Methods of fishing.

Professional fishermen in deep water.

Fish are caught by Jhiwars, Miuns, Mallahs, Chhabels, and Pakiwárás who are all professional, though not 'whole time,' fishermen. All of them use the cast net (*páka*); with puckering strings (*sag*) on sandy bottoms, and without them on the hill-streams. But a casting net is useless in deep water. There the universal method is to stake a stop-net (*bánda*) athwart the current at the tail of a pool, and to work a drag-net (*chatta*) down to it: sometimes three such drag-nets are thus worked one behind the other.* This all involves very hard labour for an extremely inadequate result in the present state of the fisheries. An incredible number of fish escape under the net which is not nearly so effective as a good pocket-seine with a long conical bag would be: and even more jump the nets. A school of 40 *behngan* or more will often follow each other over the drag-net exactly like sheep jumping out of a pen, and *rohu* and *mori* are even better jumpers. It is safe to say that four sizable fish escape from nets thus fished for every one that is caught. Another method is to fasten 20 or more drag-nets (*chatta*) so as to form a seine (*pera*) which is 'shot' from one bank of the Beas when the river is low. It has never occurred to the riverside to use a light canoe or skiff for shooting these seines, and it is a decidedly ineffective business. Most fishermen keep a grain (*tíri*) or spear for use in shallow water. Finally, two kinds of 'long line' are used. The first (*lang* or *dán*) is set across a river, the second (*khora*) in *jhíls*. Both have as many hooks as can be tied at six inch intervals. The snood (*pachão*) of the former is about 8 inches long, of the latter about 18 inches. For *rohu* and *mori* worms (*gandoa*) or *atta* are the bait: a live or dead fish (a barril, for choice) for *mahasir*: and a live frog or *dhaula* (*O. gachua*) for *murral*. That exhausts the 'legitimate' methods of fishing. They are marked by inefficiency for the most part.

Methods of destroying fry.

On the other hand, the shallows are devastated by ruthless and unskilled amateurs of various descriptions, and especially during the spawning season. They use a fine-meshed ($\frac{1}{4}''$ bar measure) fry-seine called *Godar* which will hole fish under an inch long, and a variety of 'dip', or combination 'dip' and 'drag' nets, called *Khaonche*, *Dhaungla* and *Machiali*, which destroy fry in thousands. If asked about this, the 'fishermen' will say they are catching '*chilwa*' or '*chál*' Not one in twenty of them can distinguish one carp under 6 inches long from another, for these people are not fishermen; and the damage they do to the food-supply of Lahore and Amritsar is beyond computation. Professional fishermen and amateurs alike work the shallows with the Kurli or plunge-net, which is deadly to spawning fish. In fact the methods of fishing are ineffectual when it comes to catching sizable fish, and murderous in the case of fish which ought not to be killed at all. The *Chhabels* and *Pakiwárás* catch *murral* (*saul*) on their nests in cruives (*karwa*), and the few fry which survive the summer are caught in wickerwork traps (*pattal*) and (*chip*) as they leave their nurseries for the river.

Natural enemies of fish.

Immense numbers of valuable fish are killed in the spawning season by crocodiles (*sansár*, *gariál*) in the Beas every summer, and otters and cormorants devastate both rivers. The crocodiles are said by fishermen to be increasing every year: they are probably concentrating on rivers like the Beas which have not been ruined (from their point of view) by irrigation schemes.

General condition of the industry.

The cumulative result is that, despite the formidable length of the list of Gurdaspur species, the Ravi fisheries are dead so far as the markets are concerned. Those on the Beas are rapidly deteriorating. Fish cannot be pur-

* The downstream net occasionally has a horizontal reed raft about $11\frac{1}{2}$ feet wide and covered with netting floating at right angles to the upper edge of the drag-net *Rohu* frequently clear this "without putting a fin on it."

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Fisheries.

General condition of the industry.

chased in the district except occasionally in Batala. No attempt is made at organisation among the fishing castes. Middlemen buy at 2 annas per seer *pakka* on the river bank near Naushera and retail at from 4 to 6 annas in Batala and Amritsar or Lahore. The fishermen hitherto have not attempted to market their own catches. The sooner a fish is sold (they say) the better the chance of escaping the rapacity of tahsil (and other) subordinates, who have by immemorial custom seized, and failed to pay for, every fish seen in possession of a fisherman.

Rod fishing for *mahasir*.

Fair sport is still to be had with the spoon or dead bait from Bianpur upwards on the Beas in March and October. Fish will take through the winter on warm days at Naushera and below it. But sport has been falling off for the last 30 years, as the practice of poisoning the Chakki and other hill-breeding grounds has grown. The Naushera nets catch about 10 *mahasir* to 1 *rohu* and 2 *mori*.

Mahasir fishing in the Ravi was spoilt by the construction of the Madhopur headworks. Large numbers of *mahasir* find their way, when quite small, into the canal and perish prematurely at every closure.

Pisciculture.

A Government Fish Farm has been built at Madhopur for Cyprinidæ, and a large Breeding Tank for *murral* at Sirkian. Neither experiment has advanced beyond the preliminary stage as yet.

A list of some of the commoner fishes of Gurdaspur.

SUB-CLASS.—*Teleostei.*

ORDER.—*Acanthopteraygii, or Spined fish.*

Family Percidæ or Perches.

Ambassis nama (Makni), (Kangi).—A small perch not generally exceeding 3″ in length: transparent, very destructive to small fry and ova. Common.

Family Nandidæ.

Badis buchanani or Badis badis (Jhiri).—A valuable mosquito-killing species, but predaceous.

Nandus marmoratus (Gadha).—Only 7″ long, but predaceous.

Family Labyrinthici.

Trichogaster fasciatus or Rainbow fish (Kangi), (Fidar), (Chidhu), (Chidlu).—Common.

Family Ophiocephalidae Or "snake heads."

Ophiocephalus punctatus or *murral* (Daula), (Saul).

Ophiocephalus marulius or *murral* (Daula), (Saul).

Ophiocephalus striatus or *murral* (Daula), (Saul).

These are the best food fishes in the Punjab. Highly voracious.

Ophiocephalus gachua.—A small species not exceeding 12″ in length. Very voracious. Used as live bait for the larger species. Very common.

NOTE.—All the Snakeheads lay floating eggs. And the males guard their eggs and young.

Family Rhynchobdellidæ or Leech-nosed Eels.

Mastacembolus pancalus, or small spined eel (Garoj).

Mastacembolus armatus, the larger spined eel (Garoj).

ORDER.—*Physostomi.*

Family Siluridæ. Sheat fishes or cat fishes.

Sisor rhabdophorus or Whip Tail (Kirrlu).

Clarias magur (Khaggah).—A valuable food fish.

Amblyceps mangois (Sudal).—Small submontane streams.

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Fisheries.

Saccobranchus fossilis Singgi (Nuria).—About 1′ long.

Wallago Attu (Malli).—Common and valuable as food.

Family Siluride. Sheat fishes or cat fishes.

Eutropiicthys vacha (Challi).—Grows about a foot in length. A sporting fish and excellent eating.

Callichrous bimaculatus (Pallu).

Callichrous pabda (Pallu).

Pseudeutropius atherinoides (Challi).

Macrones Aor (Tumba), (Singh), (Singhoo).

Macrones scenghala (Tingra).

Macrones vittatus (Kinggar).

Glyptosternum pectinopterum (Kagga).

Family Cyprinidæ. Sub-family Cobitidinæ, or loaches.

Botia geto (Chiphar).

Lepidocephalicthys guntea (Sundali), (Sundal), (Jebal), (Churrar), (Churli).

Nemachilus botius (Sundali), (Sundal), (Chanchi), (Kirrli), (Churrar), (Churli).

Nemachilus rupicola (Jebal), (Churrar), (Churli).

Nemachilus mackenzii (Chaudhri), (Jebal), (Churrar), (Churli).

Sub-family Cyprininæ or carps.

Discognathus lamta (Dhoguru).—Small but very good eating. Sub-montane.

Oreinus sinuatus or mountain barbel.

(Galda) Sub-montane.—Common in the Upper Bari Doab Canal. Fairly good eating. Breeds in Chamba and Kulu.

The Labeos or " Blubber-lips."

Labeo calbasu or *Kalabans* (Kallihan).—Grows to 20℔s and over.

Labeo rohita or *Rohu* (Dhambra).—The best food fish of the family, 50 ℔s and over.

Labeo caeruleus (Keri, Ravi).

Labeo diplostomus (Gid).

Labeo dyochilus (Kunni or Butal, Beas), (Parriata, Ravi).

Labeo micronthalmus (Behngan).

Cirrhina mrigala or *Mirgah* (Mori), (Muráki).—A very fine food fish. Grows to 30 ℔s and over.

Cirrhina latia (Golu).—A very prolific migratory little carp running to ¼ ℔. Runs upstream in April and is then the chief food of the *mahasir*. Known in the hills as Dogru and Tiller: in the plains as Mura. Good eating. A most important fish.

Cirrhina reba (Sunni) or (Sirrian).—Does not exceed 12″ in length.

Catla buchanani or *Catla* (Thaila).—The largest of the plains carps? Runs to 100 ℔s in weight and 6′ in length. They have been known to grow from 1″ in length to 11″ in four months. Good eating

The *Barbels*.—(A) With four barbels:—

Barbus sarana (Kangan, Kangrota), Kangi Popri).—A common broad barbel growing to 12″ in length.

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Fisheries.

Sub-family Cyprininæ or carps.

Barbus tor or Mahasir (Chiniaru), (Chitratu), (Kakkiah), (Ghaur).—Breeds in Chakki and small lateral springs above Madhopur. Common in Upper Bari Doab Canal.

Barbus hexastichus.—A species recorded by Day. Only an icthyologist could distinguish it from a *mahasir.*

(*B*) With two barbels—

Barbus tetrarupagus (Chidhu), (Phandra), (Phanta), (Chidlu), (Garathia).

(*C*) Without barbels—

Barbus conchonius (Phandra), (Chidhu).

Barbus ticto (Phandra, Chidhu).—A very useful mosquito-eating species. Extremely hardy and prolific, grows to about 4".

Barbus stigma (Phandra), (Chidhu).—Also larvicidal; grows to 5".

Nuria danrica (Makni).—A larvicidal fish.

Rasbora daniconius (Chindola), (Chal).—Not larvicidal.

Aspidoparia morar (Chal).

Rohtee cotio (Chal).

Barilious vagra (Chál), (Lohari), (Pakuári), (Pàta), (Reta).—A highly migratory species. A surface feeder rising freely to flies and certainly a mosquito destroyer. Commonly (and wrongly) described as ' Chilwa.' Very common in hills and plains.

Barlious bendelisis (Páta).—Attains 6" in length.

Barilious bendelisis. Var Shacra.

Danio devario (Darra), (Kangi).

Danio rerio (Kangi).

Perilampus laubuca (Makni).

The Chilwas (Chál).

Chela gora (Chal).—Grows to 9".
Chela panjabensis (Ravi).—Grows to 2½" (Tuk).
Chela bacaila (Chal).

Family Notopteridæ

Notopterus kapirat (Kosi), (Pher).

Notopterus chitala (Parri).

Family Cyprinodontidæ.

Haplochilus panchax (Churri, Pathankot).

Family Scombresocidæ or Gar fishes.

Belone cancila (Sua), (Takla), (Kan).

Crustacea and Mollusca;

Shrimps (Jhingar) of the genera caridina and Palæmon are common in all water-courses which contain a fair supply of weed. Fresh-water mussels and calms (sip) are also common: as are several species of crab (Saikra). There are many different species of water-snail (Guga or Munga).

OTHER AQUATIC FAUNA.

All waters swarm with water-beetles, dragon-flies, caddis and other water-flies. But the entomology of the Punjab waters has not yet been worked out in detail."

Section B.—Rents, Wages and Prices.

CHAP. II-B. Rents, Wages and Prices.

Rents. Privileged rents.

122. Table 38 shews the areas rented for cultivation by tenants. Tenants, with a right of occupancy, usually pay in terms of the land revenue with a percentage on the same, which represents the landlord's profit, varying from one to ten annas in the rupee: in some instances, especially in the Pathankot Tahsil, this *malikana* is merely nominal—and indeed is often not paid at all—and takes the form of a fixed payment in grain in each harvest. In other cases a fixed cash *malikana* is taken. But, generally speaking, these privileged tenancies are not important in this district.

Rents paid by tenants-at-will— (a) In kind.

123. Of the 44 per cent. under tenants-at-will, two-thirds pay rent in kind and one-third in cash. In Shakargarh and in Pathankot (except in the Andhar circle where tenants have to be offered special inducements) the area under cash rents is not very important; it is much more so in the other two more advanced tahsils, being 23 per cent. in Batala and 16 per cent. in Gurdaspur, but the landlord's tendency is decidedly towards a rent in the form of a share of the produce. With high prices and a comparatively low revenue demand the landlord has come to recognise the great advantage of a kind rent, and in most places is strong enough to impose this form of rent on the tenant. Although in a good year a tenant profits considerably from a cash rental, yet in a bad year the rent in kind is more equitable, especially as cash rents are rarely, if ever, remitted: he is thus not unwilling to hold his tenancy on a produce-rent. As regards the share of the crop taken by the landlord as rent, the most usual proportion in this district is one-half, but along the Beas in Batala, Gurdaspur and Pathankot this drops to two-fifths and even to one-third: in the marsh lands of the Kahnuwan *chambh* of Gurdaspur one-fourth only of the rice crop usually falls to the landlord: and in the Pahari two-fifths and one-third are the commonest rates on the inferior classes of *barani* soils. The rates throughout the district have hardly varied since last settlement. In the more advanced tahsils of Batala and Gurdaspur, except in the Dhaia Bet Beas, the landlord is gradually establishing a claim to take a share of the straw in addition to the grain: the share is usually the same proportion as that which is taken of the grain. In a fully-cultivated district, where fodder is valuable, it is only natural that this claim should be enforced, and the custom will probably spread to the more backward tahsils of Shakargarh and Pathankot, where at present a share of the grain only is at present almost universally taken. The straw of all crops, however, is not equally valuable, and only

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Rents, Wages and Prices.

Rents paid by tenants-at will—

(a) In kind.

a share of the straw of certain staples is taken. Of *kharif* crops, rice and maize straw are only used as fodder in times of scarcity, but *mash* and *moth* stalks make excellent fodder and the landlord will take these when he can : in the *rabi* only the straw of wheat and gram and their mixtures need to be taken account of : barley with its mixtures is valuable, but for the purposes of the rent-estimate was set off against the value of such crops as are cut green by the tenant for fodder or for thatching his ricks. As explained in paragraph 24 of the Pathankot Assessment Report, the landlord in the Andhar and Pathanti circles very generally takes a *malikana* of so many seers per maund of the gross produce, in addition to his share in division, but this custom is confined to the tracts where rice is the main staple : it is also more than counterbalanced by the expenditure, which falls on the landlord alone, of the up-keep of the *kuhls* or private irrigation channels, without which the rice crop could not be matured.

The rent by way of a share of the crop is a customary one and varies in incidence according to the character of the harvest : except in so far as the above remarks shew that it tends to rise, it is thus of little value in estimating the increase or decrease in the pitch of rents, however useful it may be as an economic factor in automatically adjusting the rent as between landlord and tenant.

Moreover a kind rent is by no means the full proportion ($\frac{1}{2}$, $\frac{2}{5}$, $\frac{1}{3}$, as the case may be) of the whole produce.

Various menials take their toll of produce before it is divided between landlord and tenant, and with the heavy wheat crop of the district hired labour has to be employed for the harvesting. Any estimate of the value of these deductions must necessarily be largely speculative, more especially as the rate of menials' dues, the method of payment, and the extent to which harvesters have to be employed vary considerably in different parts of the district. The diminution in the divisible produce is very marked when the actual process is watched on the threshing-floor, to which, moreover, the crop has only come after it has been depleted by the sheaves which the hired harvesters have taken away daily as payment for their labour. With the decrease in population, caused by plague and the emigration of menials to less crowded districts or to the towns, and with the general rise in wages the expenses of cultivation and harvesting tend to become heavier and heavier : in several parts of the district the customary dues of menials in the *rabi* harvest have been doubled since last settlement in an attempt to keep this indispensable class on the land.

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Rents, Wages and Prices.

Detailed discussion of the deductions from the common heap will be found in the marginally-noted paragraphs of the different assessment reports.

Batala, paragraphs 48-9.
Gurdaspur, paragraphs 44-5.
Shakargarh, paragraph 41.
Pathankot, paragraph 34.

Rents paid by tenants-at-will—(a) In kind.

But the value of his share of this diminished heap is yet further decreased on canal-irrigated lands by the custom according to which the landlord pays a proportion of the occupier's rate levied by the Irrigation Department as the price of the water supplied. This proportion is the same as the proportion of the common heap which the landlord takes as rent.

(b) Customary cash rents—*zabti*.

Zabti is another form of customary rent by which certain crops are rented at a cash rate on area. The rents for cane and cotton are usually fixed in this way : in the Batala and Gurdaspur Tahsils the custom not only prevails, but is on the increase, as the following extract from paragraph 36 of the last Assessment Report of Gurdaspur (1910) shews :—

"At last settlement only 1,671 acres are shewn as cultivated by tenants-at-will on *zabti:* the area is now 4,154 acres, but my return for the current year gives 4,612 acres, of which 3,877 acres are under cane. This tendency requires some examination, for if the outturn is good, a *zabti* rent does not represent nearly one-half or even one-third of the value of the crop. There are several reasons why cane is a privileged crop, and these operate on both parties to the bargain. From the landlord's point of view, division is not easy, and pilfering by the tenant is difficult to guard against : the price of *gur* varies within narrower limits and the landlord can consequently gauge the anticipated profit with more certainty than is the case with other crops : moreover, at the end of the lease he receives back his land with all the benefit which careful tilth and manuring has bestowed on it. He is thus prepared to conciliate a tenant who is willing to grow cane : on canal lands he will contribute the seed and on well or unirrigated land will often supply the necessary manure. The tenant on his part will always prefer to pay a cash rent on a secure crop and looks forward to something more than a moiety of the profits in return for the labour which must be expended on cane : if the landlord insists on *batai*, the tenant will often grudge that labour and the yield will be inferior. The practice of taking *zabti* is more especially on the increase in the Maira Kiran and Dhaia Bet Beas circles, where there is much marsh-grown cane."

In the more backward Shakargarh Tahsil, however, the practice is not on the increase. The following remarks are extracted from paragraph 39 of the Assessment Report of that tahsil :—

"*Zabti* rents are recorded in almost every village for *chari*, hemp, cotton and cane, although for *chari* the actual practice now is to take half *batai*, and land is seldom let for the growing of hemp. In the Darp, moreover, cane and cotton also are usually divided. Where this was done in Gurdaspur it was generally a sign of the predominance of the landlord. In Shakargarh, however, I have found that when a crop is bad the tenant will sometimes claim to have it divided instead of paying a *zabti* rate. With the recent run of poor cane harvests, this

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Rents, Wages and Prices.

Rents paid by tenants-at-will—(b) Customary cash rents—*zabti*.

may be a partial explanation of the prevalence of *batai*. A custom called '*dekh-likh*' prevails in this tahsil in respect of *zabti* rents. If the crop is below average, a third party—not the patwari—is called in to inspect it and to determine the proportion of the rent which should be remitted : his award is accepted by both landlord and tenant. This is some evidence that *zabti* rates are not regarded as unduly disproportionate rents for the crops on which they are taken. *Chari* is customarily regarded as a privileged crop, since the tenant must have fodder for his cattle, but in the Paintla and Darp, where grazing is scarce, the landlord has forced up the rates on the tenant. Rates for hemp are invariably the same as those for *chari*.

The general *zabti* rents recorded for cane and cotton usually vary within well-defined tracts in each circle, and the rate for cane is generally twice that of cotton."

The rate of *zabti* rents varies enormously, the good soils paying much more than the poorer. Thus in Shakargarh Tahsil *zabti* as high as Rs. 4-8-0 and as low as annas 8 a *kanal* is recorded for cane, but the commonest rate everywhere is from Rs. 2 to Re. 1 per *kanal*, though the poor cane of Pathankot Tahsil often goes below this. Cotton rents are almost invariably half cane rents. *Chari* and hemp usually fetch from Re. 0-12-0 to Re. 0-6-0 a *kanal*, but, as said above, *zabti* rent on these crops is taken in Shakargarh Tahsil alone and that only to a small extent.

(c) Competition cash rents.

Where cash rents paid by tenants-at-will are at all common, they provide the most satisfactory method of ascertaining the true renting value of land. In this district cash rents are common only in the Batala and Gurdaspur Tahsils and in the Chak Andhar of Pathankot. In the two former it is remarkable that the area under cash rents has declined in comparison with that so held at the 1891 settlement. We may deduce from this the lowness of the assessment, the high range of the prices of agricultural produce, the general predominance of the landlord over the tenant, and the readiness of the latter to adjust his rents so that he may reap the benefit of the rise in prices. In these two tahsils, moreover, the practice is for the owner to take cash rents on his worst land, and this he can only do when the demand for land is keen. In Shakargarh, on the other hand, it is by no means the rule for the worst lands to be cash-rented : the reason for this is the supineness of the Rajput owners in that tahsil ; with large holdings, a cash rent is simpler and more easily collected than one in which the crop itself is divided ; the same reason applies in the case of the Chak Andhar of Pathankot, but the tendency is there accentuated by the necessity for securing tenants, who in this circle are mainly immigrants from Shakargarh and Jammu and other parts of the Pathankot Tahsil.

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Rents, Wages and Prices.

Rents paid by tenants-at-will—

(c) Competition cash rents.

Cash rents, as explained in the different Assessment Reports, have everywhere risen, and special efforts were made at the recent settlement to obtain a really careful elimination of all recorded rents which appeared for any reason to be abnormal. From the remaining rents the statements of normal rents, which are shewn in the various assessment reports, were compiled. The general run of cash rents is naturally highest in Batala and lowest in Pathankot, but the rise, as compared with the previous settlement, is greatest all round in Gurdaspur. Of the circles in which cash rents prevail to any extent the rise is smallest in the Andhar of Pathankot where it is 26 per cent. and largest in the Bet Ravi of Shakargarh where it is 86 per cent.

Batala, paragraphs 57—61.
Gurdaspur, paragraphs 38, 39, 51, 52.
Shakargarh, paragraphs 26, 43, 44.
Pathankot, paragraphs 25, 29.

For a detailed analysis of the cash rents in the different tahsils reference should be made to the marginally-cited paragraphs of the various assessment reports. The actual rates for each class of soil vary greatly in different parts of the district and any estimate of average rent would be only misleading. The following may be taken as a rough approximation to the normal rents obtainable on each class of soil :—

Chahi ..	.. Rs. 2 to Re. 1 per *kanal*.
Nahri ..	.. Re. 1-8-0 to Re. 1 per *kanal* (the comparatively low rate is due to the fact that irrigation is only given in one harvest and that the tenant has to pay half the water rate).
Nahri zamindari	.. Re. 1-4-0 to Re. 1 per *kanal*.
River sailab	.. Re. 0-14-0 to Re. 0-10-0 per *kanal*.
Barani I	.. Re. 1 to Re. 0-8-0 per *kanal*.
Barani II	.. Re. 0-8-0 to Re. 0-6-0 per *kanal* (falling to Re. 0-4-0 in the Pahari of Pathankot).
Barani III	.. Re. 0-6-0 to Re. 0-3-0 per *kanal*.

Wages

124. The following review of the rise in wages in the district during the 20 years 1890 to 1909 was furnished by the Settlement Officer in 1910 in connection with the Wages Survey :—

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Rents, Wages and Prices.

Wages. First period.

"There are three distinct periods in the history of wages during the last 20 years. From 1890 to 1898 the prevalent rates were those shewn in the following table :—

Name of tahsil.	Daily.				Monthly.
	Labourer.	Carpenter.	Blacksmith.	Mason.	Ploughman.
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Batala ..	0 3 0 to 0 4 0	0 6 0 to 0 8 0	The same as carpenter, but in villages does not generally work on daily wages.	0 7 0	4 12 0
Gurdaspur ..	0 3 0 to 0 4 0	0 6 0 to 0 7 0		0 5 0 to 0 8 0	4 1 0
Pathankot ..	0 3 0 to 0 4 0	0 5 0 to 0 8 0		0 6 0 to 0 7 6	4 0 0
Shakargarh ..	0 2 0 to 0 3 0	0 5 0 to 0 6 0		0 6 0 to 0 8 0	4 1 0

Second period.

These are the normal wages of an agricultural tract unaffected by any outside influence. The three tahsils which are situated on the railway throughout shew a higher rate than the outlying tract of Shakargarh. In 1898 the first disturbing element, *viz.*, the emigration of labour to the canal colonies, shewed its effect on wages which went up to the figure shewn in the table below :—

Name of tahsil.	Daily.				Monthly.
	Labourer.	Carpenter.	Blacksmith.	Mason.	Ploughman.
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs A. P.
Batala ..	0 4 0	0 8 0 to 0 9 0	Generally do not work on daily wages, but the rates are the same as for carpenter.	0 8 0	5 0 0
Gurdaspur ..	0 4 0	0 8 0 to 0 9 0		0 8 0 to 0 9 0	5 0 0
Pathankot ...	0 4 0	0 8 0 to 0 9 0		0 8 0 to 0 9 0	5 0 0
Shakargarh ..	0 3 6	0 6 0		0 8 0	4 8 0

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Rents, Wages and Prices.

Wages. Third period.

Continued emigration to the colony, plague mortality (starting from 1902) and high prices combined to cause another general rise which first became noticeable in 1905. Since then there has been no material change, but there is every tendency for wages to rise and they are already in several cases rather above the rates shewn in the next table :—

Name of tahsil.	Daily.				Monthly.
	Labourer.	Carpenter.	Blacksmith.	Mason.	Ploughman.
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Batala ..	0 6 0 to 0 8 0	0 10 0 to 0 14 0	The same as carpenter.	0 12 0 to 1 0 0	7 4 0 to 8 12 0
Gurdaspur ..	0 5 0 to 0 7 0	0 10 0 to 0 12 0	The same as carpenter.	0 11 0 to 1 1 0	6 8 0 to 7 9 0
Pathankot ..	0 5 0 to 0 7 0	0 9 0 to 0 15 0	The same as carpenter.	0 13 0 to 0 15 0	7 8 0
Shakargarh ..	0 4 6 to 0 6 0	0 7 0 to 0 11 0	The same as carpenter.	0 9 0 to 0 13 0	7 4 0 to 7 12 0

Earnings of village menials.

The shortage of labour is very marked in the district and the return of easier prices are unlikely to affect the present cash rates. The earnings of village menials not paid by the day consist mainly of the dues in kind which they receive at harvest time. The value of the annual receipts of the ordinary ploughman can be determined fairly accurately as shewn in the following table :—

		Rs.
Kharif—		
Unhusked rice, 6 maunds	.. .. =	12
Mash, 3 maunds	.. .. .. =	7
Moth, 1 maund	.. .. .. =	2
		21
Rabi—		
Wheat, 10 maunds	... . =	30
Other annual expenses—		
Food, Re. 0-2-0 per day	.. .. =	46
Tobacco	.. .. =	6
At fair time, customary payment of	.. =	1
Turban, 1	.. .. .. =	1
Kurtas, 2	.. .. .. =	1
Chadars, 2	.. .. .. =	2
Blanket, 1	.. .. .. =	3
Shoes, 2	.. .. .. =	3
Total	.. ..	114

Before the general rise began the ordinary family servant used to receive only his clothes and a pair of shoes annually : he can now obtain a cash payment of Rs. 3 to Rs. 5 a month in addition.

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Rents, Wages and Prices.

Wages of skilled labour.

The wages of a skilled labourer, such as *lohar* and *tarkhan* on the other hand, are more difficult to ascertain, since these will earn by casual labour sums which cannot be brought into the account. The average fixed receipts of a *lohar* or *tarkhan* are given in the following table:—

Kharif—

		Rs.	A.	P.	
Moth, 10 seers	=	0	10	0	
Sawank, 6 seers	=	0	3	0	
Mash, 4 seers	=	0	4	0	
Gur, 2 seers	=	0	2	6	
		1	6	6	per plough.

Rabi—

		Rs.	A.	P.	
Wheat, 10 seers	=	0	10	0	
½ *Bhari*, 8 seers	=	0	8	0	
Barley, 10 seers	=	0	8	0	
		1	10	0	per plough.

Ploughs—

		Rs.	A.	P.
40 × (1-6-6 + 1-10-0)	=	121	4	0
Add marriage receipts, Rs. 2 per marriage for four marriages in a year	=	8	0	0
Total		129	4	0

40 ploughs per *kamin* are a fair number to take as served by one *kamin*.

The payments being customary vary little in value in the different tahsils: in Batala, however, the scale is higher and works out to Rs. 190 per annum."

Since this survey took place wages have again tended to rise slightly, but there is no marked increase under any one head. Purely grain wages, which used to prevail almost universally in the case of village menials, 30 or even 20 years ago, have been rapidly dying out, and with the continued emancipation of the lower classes are likely to become entirely extinct in the near future.

Causes of the rise in wages and prices.

125. The influence of each of the various causes which have been at work in raising wages all round will no doubt be duly estimated when the Report on the Prices Enquiry now being conducted by the Government of India has been issued. As regards the causes in this district, the following extract from a note furnished by the Settlement Officer to the Prices Enquiry Commission in 1911 may be reproduced :—

"The question of causes of enhanced prices has to be considered under two heads—(*a*) prices of food-grains and agricultural produce generally; (*b*) price of labour. These two act and re-act on each other and to some extent one will rise or fall in sympathy with the other. At the same time the price of labour,

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Rents, Wages and Prices.

Causes of the rise in wages and prices.

when it has once risen, is very slow to fall, whereas the price of agricultural produce is more elastic and rises or falls with greater facility. In agricultural communities the ancient practice, which still survives, of paying wages of labour in kind at once indicates the connection between the price of food-grains and the price of labour. If we take two labourers in the same village or tract, one of whom is paid in kind and the other in cash, it is clear that, when prices of food-grains are high, the cash-paid labourer must require a higher wage than he receives when prices are low. The first and main cause of the rise in wages is therefore to be assigned to the rise in the prices of food-grains. The second main cause is the scarcity of labour produced by (1) depopulation due to plague mortality: great periodical mortality from malaria has always been a feature of agricultural life, but this has been insufficient to check increase in population: the advent of plague has now turned the scale and, throughout this district at any rate, population has declined in the last ten years; (2) increased demand for labour on the canal colonies, on public works, and locally, in factories, coupled with the much greater mobility of labour: the labouring population has at last begun to abandon its former immobility and to take advantage of railways and the improvement in communications. The growing independence of the labouring class, which is a source of complaint from every employer of labour, is the third cause of enhanced wages; this is produced directly by the cause last explained and indirectly by the spread of knowledge and comprehension of the way in which a man's interests may be best served. The fourth cause, which is also an outcome of the above, is the general rise in the standard of comfort: the existence of this factor is generally admitted and need not be further explained. These two last causes chiefly prevent the fall in wages which might otherwise be expected to accompany every fall in the price of clothing and other necessaries—or what have come to be looked upon as necessaries—do not usually fall in sympathy with or in the same proportion as the fall in the price of food-grains.

The enhanced price of food-grains is due in my opinion mainly to the enormous enlargement of the market for Indian agricultural produce. The definite entry of India into the world's market has only occurred within the last few years. Less than 20 years ago each province and, to a lesser extent, each district had its own scale of prices and no outside influence would much affect the prices. Now a short harvest in the Argentine or Canada will affect the price of food-grains, more especially of wheat, in the remotest village of the most obscure corner of India, provided that communications are reasonably easy. The ordinary agriculturist no doubt only dimly comprehends this, but even the smallest trader has been quick to take advantage of it and has learnt to watch and be guided by the operations of large buyers such as Ralli Bros. and other exporting firms. The formation of corners and the holding-up of food-stocks have been the natural outcome together with the consequent reluctance of prices to fall. India being an exporter and not an importer of food-grains, these tendencies are not counteracted by the pouring of grain into this country with the inevitable accompaniment of a fall in prices. The demand from outside will now always prevent any fall of prices to the level even of 10 or 15 years ago.

The above are so much the predominating factors that any other causes are only secondary, and the only one which is worth mention is the general rise in the standard of comfort already alluded to. The principle of barter must always lie behind all trade transactions and the agriculturist, with more wants to satisfy, must now hold out for prices for his produce which the trader, sure now of a profit in his widened market, is found ready to give."

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Rents, Wages and Prices.

Causes of the rise in wages and prices.

Of the causes ordinarily operative in raising prices and wages it may be said that there has been no extension of railways in the district since 1886, communications have not improved, no mining or new factory industries of any importance have been introduced, there have been no famines, and cultivation in the district is stationary.

Prices of food-grains.

126. The prices of food-grains assumed at the recent settlement are given in the subjoined extract from paragraph 34 of the Settlement Report, 1912 :—

"The sanctioned commutation prices in annas per maund were as under:—

Rice	26
Cane (*gur*)	46
Cotton	70
Maize	23
Mash	32
Moth	24
Til	60
Toria	38
Wheat	30
Barley	18
Gram	24
Sarson	48
Wheat and barley	22
Wheat and gram	25
Barley and gram	21
Masar	22

The rise in prices since last settlement in each tahsil worked out at 10·39 per cent. in Batala, 12·5 in Gurdaspur, 16·5 in Shakargarh, and 12·5 in Pathankot. As a matter of fact, the effective rise was certainly greater in each tahsil, partly because the prices assumed at last settlement were based on retail prices and not, as now, on those actually received by *zamindars*, and partly because the prices now assumed were not sufficiently high : the report on prices was submitted in 1908, when it was not so apparent as it is now that the enhanced prices then prevailing were likely to be permanent, and the assumptions were founded on the rates prevailing in the years prior to 1908, which did not justify the fixation of higher rates than those assumed. It can now be seen that a rise of not less than 20 per cent. in the Batala, Gurdaspur and Shakargarh Tahsils and of rather less than 20 per cent. in Pathankot could safely have been assumed."

The causes of the rise in prices have been already discussed above.

Material condition of the people.

127. The material condition of the labouring classes has considerably improved. Their wages are nearly double what they were 20 years ago. An unskilled labourer was then paid at rates varying between Re. 0-3-0 and Re. 0-4-6 per day ; but now his wages range between Re. 0-6-0 and Re. 0-8-0. The wages of a skilled labourer which then ranged between Re. 0-6-6 and 0-9-4

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Rents, Wages and Prices.

now seldom fall below a rupee. In 1879 it was reported from this district in connection with the Famine Report of that year that weeders of crops were paid at the rate of two seers of grain per day. Now they work only till midday and are paid Re. 0-4-0 a day.

Material condition of the people.

With the rise in wages there has also been some rise in the standard of living of the labouring classes; the cost of their necessaries of life has no doubt increased, but the rise has not been proportionate to the increase in their wages: their houses are of the same material as before and their requirements in the matter of furniture, food and dress have not considerably increased. The result is that they can save more money and feel more independent,—a fact which has given rise to a complaint on the part of *zamindars* that their *kamins*, from whom labourers are generally drawn, do not pay them the same regard as before.

An ordinary labourer's yearly expenditure on food and dress may be estimated as follows:—

	Rs.	A.	P.
Two shirts of country cloth at annas 8 per shirt ..	1	0	0
Two *chadars* of the same cloth at Re. 1 per *chadar* ..	2	0	0
Waist-cloth	0	8	0
A blanket lasting four years and costing Rs. 4 ..	1	0	0
One pair of shoes	2	0	0
Food at annas 2 per day	46	14	0
Total	53	6	0

The cultivators are also generally better off. Owing to emigration to the new colonies and the ravages of plague there has been generally no increase in pressure on the soil. The prices of agricultural produce have generally risen and, in spite of the recent enhancement, the Government demand does not represent a larger percentage of the value of the produce than it did twenty years ago. There has not been much increase in the cultivator's wants, though, owing to his increased prosperity, his style of living has to some extent improved. There are more brick houses and a greater approximation to the standard of towns in the matter of dress and ornaments. The immense trade in piece-goods has largely ousted the home-spun article from the market, and all but the poorest or the most old fashioned considers it beneath him to possess only native-made clothes. Twenty years ago, only the lambardar of a village would ordinarily keep a pony: now any *zamindar* of anything more than average status can indulge in this luxury. A cultivator has however to incur a larger expenditure than a common labourer on marriages, is more involved in litigation with all its attendant

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Forests.

Material condition of the people

expenses, and more liable to be affected by vicissitudes of season. The difficulty of making good losses in stock due to disease, &c., has also much increased owing to a large increase in the price of cattle. He is therefore more liable to fall into debt; but his position in this respect has been to a considerable extent strengthened by the Co-operative Credit Societies, a large number of which has come into existence in this district. His style of living is better than that of an ordinary labourer. His yearly expenses on food and clothes may be estimated as follows:—

	Rs.	A.	P.
Three shirts	2	0	0
Two *chadars*	2	0	0
Two turbans	3	0	0
A pair of shoes	2	0	0
Dotahi, Loi, &c.	4	0	0
Food at annas 3 a day	68	7	0
Total	81	7	0

A middle-class clerk is the only person who does not share in the general prosperity. His income has remained stationary, while his expenses have been on the increase. His style of living must improve in proportion to the rise in the standard of living of cultivators and the labouring classes who are socially his inferiors. He must hire a house, keep a servant, educate his children and support the female members of his house whom custom forbids to work for their living; with the high prices now prevailing it is not surprising that most of the middle-class clerks can with difficulty manage to make both ends meet. The number of items to be considered is so great that it is difficult to frame a satisfactory estimate of the expenses of a middle-class clerk; but it is to be doubted whether even a small family, say one consisting of four persons, can live with anything approaching decency on an income of less than Rs. 50 a month: the figure has even been put as high as Rs. 100 a month by members of the class concerned, but this would include the expense of educating children. It is patent enough, however, that any ordinary member of the district establishment, if he has no private means, must supplement his income in some other way if he wishes to maintain his position among people of his own class.

Section C.—Forests.

The Dalhousie forests.

128. In 1910, Mr. C. M. King, as Forest Settlement Officer, prepared a record of rights for the forests situated within the Municipal limits at Dalhousie and by Punjab Government Notifica-

tion No. 24, dated January 10th, 1913, these were declared to be reserved forests, with exceptions in favour of certain tenants of old standing and plots appropriated to special purposes. A working plan has been drawn up and it is to be hoped that under expert management the forests will become a source of more profit to the Committee in the future than they have been in the past. The forest area is 1,335 acres. The characteristic trees of these forests have been noticed in Part I under "Botany." The Balun Cantonment forests (area 1,011 acres) are under the management of the Military authorities.

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Forests.

The Dalhousie forests.

Unclassed forests.

129. There are two small areas alongside the Upper Bari Doab Canal in the Pathankot Tahsil designated "unclassed forests"; these are Government properties, aggregating 266 acres, mainly scrub jungle, the grazing in which is let for a petty sum annually.

The Shahpur-Kandi forests.

130. The so-called Shahpur-Kandi forests are situated in the Hill circle of the Pathankot Tahsil. The late Mr. Alexander Anderson prepared a record of rights for these forests in 1884, and, 20 years later, in 1904, they were declared to be protected under section 28 of the Indian Forest Act VII of 1878. In the meantime the area had been surveyed by the Survey Department and the limits of demarcated forest marked on the ground by means of pillars, as well as on the map. The demarcated forest contains 2,339 acres, and the undemarcated 5,099 acres, which comprises nearly all the common land of the 17 villages in the tract. The question of the management of these forests remained under consideration until 1909 when they were removed from the jurisdiction of the Forest Department and placed in charge of the Deputy Commissioner of Gurdaspur with effect from January 1st, 1910. The reasons for maintaining superintendence of the forests as well as the justification for excluding them from the general operations of the Forest Department are well put in the following observations of the late Mr. B. H. Baden Powell, a former Conservator of Forests :—

"The main, if not sole, object of preserving the forest is to prevent these hot dry hills being denuded and turned into a veritable desert, and to preserve such soil as exists from being washed off the bare slopes; while the inhabitants of the neighbourhood may have a supply of wood, of fuel, and of grazing accommodation; in short, the value of the forest is purely local, and it should be maintained solely for the benefit of the people as their forest, Government only managing it and taking so much of the proceeds as should pay the cost."

A Ranger, selected from the District Kanungo staff, is stationed at Dhar and is assisted by 8 *rakhas* and by *halkadars* appointed from among the people. The income well exceeds

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The Shah pur-Kandi forests.

the expenditure, and a meeting is held by the Deputy Commissioner every year at Dhar for the discussion of points of management and for decision as to the uses to which balances are to be put: works of public utility in the tract are carried out and the balances are deposited in the new Co-operative Credit Society in the hill circle. Fees are levied from Gaddis for the grazing of sheep and goats in the area and from Ban Gujars for the grazing of buffaloes. These people are immigrants from Chamba and stay for the cold weather only: the collection of the fees is farmed out and the amount paid forms a considerable portion of the income of the forests. An attempt is now being made to extract turpentine from the *chil* trees and the venture seems likely to be financially successful. The people are thoroughly content with present arrangements and evince great interest in the details of management.

A list of the trees and shrubs which occur in these forests is given hereunder, omitting those whose names have already been given under 'Botany' in Section A :—

Scientific name.	Vernacular name.	Use.
Pinus longifolia ..	Chil ..	Timber and turpentine.
Anogeissus latifolia ..	Sufed dhon ..	Wood for fuel and bark for tanning.
Anogeissus latifolia ..	Bara dhon ..	Wood for *chappars*.
Eloeodendron glaucum ..	Marundu ..	Ditto.
Odiva wodies ..	Kaimbal ..	Heart used for hinges of gates.
Albizzia odoratissima ..	Karmru ..	Fodder.
Pyrus pasbia ..	Kainth ..	....
Ougsimia dalbergioides ..	Sanam ..	Leaves for fodder and wood for *chappars*.
Nyctanthus arbortristis ..	Koori ..	Ditto.
Rhyzia stricta ..	Gandhira ..	Wood for *chillums* and flowers for snuff given to infants when teething.
Oroxylum indicum ..	Tat Marang ..	*Chappars*.
Pueraria tuberosa ..	Salodh ..	Leaves for fodder and root for medicine.
Rydia calycina ..	Pulah ..	Agricultural implements.
Cæsalpinia sepiaria ..	Uwan ..	Timber.
Grewia asiatica ..	Pharan ..	Timber and fodder.
Glochidion velutinum ..	Kalam ..	Ditto.
Vitax negundo ..	Banah ..	*Chappars*.
Flueggia leucopyrus ..	Girath ..	Ditto.
Holarrhina antidysenterio ..	Kiar ..	Bark used for medicine.
Murraya Roenigni ..	Jandala ..	Leaves for medicine.
Salix var ..	Badah ..	Timber and agricultural implements.

The Shahpur-Kandi forests.

Scientific name.	Vernacular name.	Use.
Miniasa rubicaulis ..	Dadrahar ..	Fodder for goats.
Indigofera ..	Kathu ..	Ditto.
Pistacia integerrima ..	Rakrairan ..	Timber and agricultural implements : the pod for medicine.
Celastrus paniculatus ..	Sankhir ..	For medicine.
Asparagus racemosus ..	Sahanspaur ..	Ditto.
Maringa pterygosperma ..	Sohanjna ..	The pod is used as a vegetable
Ischoenum angustifolium ..	Bagar ..	A grass used in making rope for string-beds.

Fuel and fodder reserves.

131. Fuel and fodder reserves are maintained only in the Hill circle of Pathankot where they are known by the name of *andarwara*. These are usually enclosures in the village *shamilat*, varying in size from 2 to 20 acres, and are enclosed by individual *zamindars* for their own use : the produce of these reserves is to be utilized only by the enclosers themselves and cannot be sold : it used to be sold to the *Gaddis* who bring down their flocks from Chamba to graze them in the low hills during the winter, but now it can only be given them in return for the manuring of fields by their flocks. Several of the *tikas* of the Hill circle contain these reserves, but by no means all. There are large enclosures in Tarhari and in the Chakkar *tika* of Hara.

Section D.—Mines and Mineral Resources.

Stone and slate quarries.

132. The mines and the known mineral resources of the district are limited to three quarries (two of stone and one of slate) at Dalhousie, and nine saltpetre refineries scattered about the district. The Dalhousie quarries are hardly worthy of the name : the slate quarry is at Kathlag and is owned by the Municipal Committee : it has been in existence not less than 30 years and slate is extracted by the simple process of digging it out of the face of the hill as required : the slate is used locally for roofing and flooring purposes : the right to take this slate was leased by the Committee from time to time, but in 1913, after some correspondence on the question whether the quarry should be brought under the Mines Act, no offer could be obtained for the lease and the quarry is consequently abandoned, at any rate for the present. The stone quarries are privately owned, but are very insignificant excavations, and such outturn as there is, is only used locally.

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Stone and limestone.

133. For repairs to the Pathankot-Dalhousie road stone and limestone are removed by the Public Works and Military Works Departments respectively from the hill-sides adjoining the road, and the owners of the land are compensated at the rate of four annas per hundred cubic feet. Boulders are removed from the bed of the Chakki in Bhadroya and Mamun near Pathankot for use as ballast on the railway and for lining the banks of the Upper Bari Doab Canal. An enormous quantity of these boulders broken up for ballast were supplied on contract to the North-Western Railway by Major Bailey for the doubling of the main line during the years 1908—1912, and the owners of the land were paid at the rate of one anna for every hundred cubic feet removed.

Lime-burning.

134. The boulders in the bed of the Chakki are used in making lime in a few places in the Pathankot Tahsil: there are two kilns in Pathankot itself, four in Mamun, and others in Kauntarpura and in various villages along the Chakki, mainly in the Mirthal *ilaka*. The lime is exported to Amritsar.

Saltpetre.

135. There are at present nine licensees for the extraction of saltpetre in different places in the district: the fee levied is Rs. 2 per annum, and licenses are granted on application.

Charcoal burning.

136. Wherever wood is sufficiently plentiful charcoal-burning is on the increase. In the district as a whole suitable trees are not available, but in the Bharrari of Shakargarh, where the *kikar* flourishes in the poor soil of the uplands and ravines, a village will sell its jungle every seven years or so to contractors who cut down the trees and burn charcoal which is mostly taken to Sialkot by road. The villagers thus get a welcome windfall and the trade must be profitable, since charcoal can be bought at the kiln for Re. 1 per maund, whereas the retail price in Gurdaspur town, say 30 miles from the spot, is often as high as Rs. 2-8-0 per maund.

Section E. Arts and Manufactures.

Cotton-weaving.

137. In spite of the number of *Julahas* in the district, cotton-weaving cannot be said to be in a flourishing condition. Families of *Julahas* are found in nearly every village and a whole family will work together or two or even three families will join in the labour. Hand-spun yarn, or the coarse yarn of the Punjab mills, are used for the weaving, and the tools are extremely cheap, a *Julaha's* brush lasting for years. There are several

varieties of hand-made cloth, but the commonest form is *khaddar*, a coarse white cloth with a single warp and weft. Batala has 150 looms and at one time much *khaddar* was exported to the Kangra hills, but the trade has long ceased: about 50 persons are engaged in the Batala industry. The profits are very small, each weaver earning about eight annas a day.

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Arts and Manufactures.

Cotton-weaving.

Susi.

138. A more paying branch of cotton-work, also centred at Batala, is the manufacture of *susi* used for women's trousers. These are largely made of English and country thread: cotton is the principal ingredient, though in the better kinds there is proportionately more silk. Prices range from Re. 0-14-0 to Rs. 3 per yard and about 100 persons are engaged in the industry: export is to Amritsar whence other places, especially Jammu, are supplied.

Garbi lois and joras.

139. Cotton also is used in proportions varying from $\frac{1}{3}$ to $\frac{2}{3}$ in the manufacture of "*garbi lois*," the thread being of English make. These are made at Sujanpur, Dinanagar and Pathankot.

At these three places the article is known as a "*jora*" and sells at Rs. 2 to Rs. 2-8-0: these *joras* are made by *Julahas* in many villages in Pathankot, and a skilful workman can make one a day, though the usual outturn is about one every two days. A dealer in each of the three centres collects all the *joras* and sends or takes them to the United Provinces where they are in great demand: numbers are also sold in Amritsar, and some are even taken as far as Calcutta.

Garbi chaddars.

140. *Garbi chaddars* of *pasham* and cotton mixed are made at Kanjrur in Shakargarh by Kashmiris who have 16 looms at work there. These looms also turn out *pasham chaddars* which are usually sold in the tahsil itself at Shakargarh and elsewhere. *Garbi chaddars* cost Rs. 10 and *pasham chaddars* Rs. 16 to Rs. 20: they are usually white, but coloured ones areal so made.

Embroidery.

141. At Dera Nanak about 100 families of Kashmiris and others are engaged in weaving and embroidery work: this industry is maintaining its position fairly well, though it has altered its character of late years. The materials used are no longer pure but mixed. The chief form the work now takes is the embroidering of *lois*, table-cloths, etc., and the weaving of *lois* and blankets. The best productions are *lois* of *pasham* and *raffal* mixed, and these sell at about Rs. 2 a yard. The *pasham* comes from Nurpur in Kangra which is a collecting centre for Tibetan trade, and the *raffal* yarn is imported from Germany *viâ* Amritsar.

Coloured blankets are woven with a warp of *raffal* and a woof of wool. White *lois* are imported from Europe and em-

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Embroidery.

broidered with coloured *raffal* yarns, also obtained from Germany : the embroidery is done by hand and it is said that machine-worked embroidery finds no favour. An ordinary white *loi*, costing Rs. 7-8-0, will be worth, when embroidered, about Rs. 20. The work is not of a superior kind, but the articles turned out find a ready sale in Calcutta and the United Provinces. The embroidery is done by adult-workers paid by the piece and by children who get anything from Rs. 2 to Rs. 5 a month from the *ustad* who is also the trader who exports the goods. The weavers work at pitlooms owned by themselves or provided by the *ustad* : in the latter case the *ustad* also provides the materials and pays the worker by the piece : an ordinary weaver can make one *loi* in three days and for this he gets Re. 1-8-0.

Progress of cotton-weaving.

142. Various efforts have been or are being made to establish cotton-weaving on an extended and improved basis, but so far little progress is apparent. A travelling exhibition of looms was sent round recently to some weaving villages, such as Bham in the Batala Tahsil, but these have not hitherto met with much success. Bham has also a weavers' society, but so far it has done nothing. Kala Afghanan, also in the Batala Tahsil, has a similar society. A few years back improved hand-looms were set up at Kahnuwan in the Gurdaspur Tahsil, but the promoters were ignorant of weaving and of the conditions of the market, the machinery soon got out of order and the factories, being unable to make up the cost of supervision, naturally failed.

On page 25 of Latifi's "The Industrial Punjab' it is said that "The All-India Spinning and Weaving Mill, Limited, with an authorised capital of Rs. 25,00,000, is about to be established in the Gurdaspur District. The prospectus states that it will be erected on the most approved and up-to-date lines and will also be fitted up with machinery for the bleaching, dyeing, printing and finishing of cloths." This project has unfortunately come to nothing.

The wool industry.

143. The wool industry has much declined of late years in face of the competition of cheap shoddy articles of European manufacture. In Khan Bahadur Shaikh Ghulam Sadik's branch carpet factory at Sujanpur there is a single loom at which Kashmiris weave fine coloured shawls, the thread of which is imported. Two or three Kashmiris in the same town also weave "tafta," a special kind of white Pashmina shawl measuring 7 by $1\frac{3}{4}$ yards and fetching from Rs. 40 to Rs. 80, according to quality, at Amritsar : one of these shawls takes two to three months to make, so it is apparent that the profit is not large.

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The wool industry.

Coloured woollen blankets are also woven in Sujanpur and sell at Rs. 4 to Rs. 6. The wool is obtained either from Amritsar, or from Gaddis who bring their sheep down from Kangra and shear them here: in the latter case, the dyeing is also done at Sujanpur. The Kashmiris of this town used to be a flourishing community, but the trade in shawl-weaving and embroidery has so much declined that they have largely forsaken their ancestral industry and betaken themselves to other pursuits.

Weaving machinery.

144. Mr. Latifi mentions, on page 361 of "The Industrial Punjab", that a machine for weaving gold lace had been invented by an inhabitant of Kahnuwan: this was one Jagiasa Nand, who is still endeavouring to patent his invention; the machine, as well as another for weaving cloth, is set up at Kahnuwan, but neither are now being worked.

Sericulture.

145. The district has always exercised an attraction upon the supporters of sericulture as a cottage industry and various attempts have been made to encourage the systematic rearing of the silk-worm. A lengthy history of sericulture in the district is given at pages 130—138 of the 1892 Gazetteer and also in Mr. Hailey's "Monograph on the Silk Industry of the Punjab, 1899." An abstract of the information available may be given here.

As far back as 1854 it is recorded that one Ali Bakhsh of Pathankot was given an advance of Rs. 150 for establishing a silk factory: he produced some fine cocoons, some of which were sent to Lahore by Mr. Forsyth of Kangra, in which district Pathankot was then included. About the same time it is also noted that certain Musalmans for the last eight or ten years had raised silk-worms at Sujanpur and obtained silk, disposing of it at Batala at the rate of Rs. 11 a seer, standard weight. In 1862 a bonus of Rs. 500 was given to Jaffir Ali of Darya Pathanan in the Shakargarh Tahsil as a reward for his efforts to produce silk. In 1863, a Mr. Cope of Hasiki, who had long interested himself in sericulture, entrusted a large quantity of Kashmir eggs to Jaffir Ali, who raised for him 'a magnificent crop' of from 8 to 10 maunds of cocoons. Jaffir Ali, whose name and work is still remembered at Naina Kot near which he had his rearing sheds, appears to have been the only man to rear silk-worms with continued success. The Deputy Commissioner of Gurdaspur reported in 1863 that Jaffir Ali had been cultivating silk-worms and reeling silk for 20 years. He procured his eggs originally from Peshawar, and kept his worms in 'two old pals, and five or six low and ill-ventilated sheds. He laughed at elaborate sanitary arrangements, and

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said it would never do for any one but amateurs to adopt them'. He sold his silk for Rs. 15-8-0 a seer—a better price " than can be obtained in Peshawar for the common Kokan, Bokhara, and Khulm silk, and within a few annas of the value of that called *lab-i-abee*, which is raised on the banks of the Oxus.' Jaffir Ali was admitted to have made something like a fortune from the business, in spite of the fact that he had no mulberry trees of his own, and was 'at the mercy of the villagers, who unconscionably raised the price of leaves.'

Native cultivators now began to increase in numbers, and in 1873 there were at least fifty families occupied in the trade. Jaffir Ali continued his operations and was anxious to extend them, but it was found that he and other native growers habitually endeavoured to rear a much larger number of worms than they could either house or feed. The result was, of course, deterioration in quality. In the same year, 1873, Mr. F. Halsey commenced rearing operations on an extended scale at Sujanpur and at his suggestion the Local Government sanctioned the grant of Rs. 1,000 in prizes from the Gurdaspur District Funds for the best cocoons of local production. From this originated a series of annual exhibitions, the first of which was held at Gurdaspur in 1876. There were exhibitions at Gurdaspur in 1877 and 1878 but not in 1879 which year was marked by the death of Mr. F. Halsey, who had been the chief mover in the Gurdaspur Exhibitions. He had also given a large number of prizes at the exhibitions, and had further encouraged the cause of silk culture by large donations of young plants of the Chinese mulberry. His filature was bought for £600 by an agent sent out by Messrs. Lister & Co., Silk Spinners of Manningham, Yorkshire, who announced their intention of attempting silk culture on a large scale in the Kangra District. The firm was, after some negotiations, given a lease of the mulberry trees on the Gurdaspur-Amritsar road. The fourth exhibition was held in Gurdaspur in 1880 and the fifth at Madhopur in 1881 : in subsequent years one was held annually at Pathankot up to 1890 when these exhibitions were discontinued owing mainly to the disappointing nature of the exhibits and malpractices on the part of the exhibitors.

Messrs. Lister & Co. maintained their silk filature in the old Government Workshops at Madhopur from 1880 to 1892. The best appliances were imported from France and the firm arranged for supplies of disease-free seed to be sent annually from the same country : this was distributed to native growers who reared the worms in their own houses and brought the

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cocoons to the filature. An attempt was made to keep the seed obtained from the moths through the hot weather in a house rented on the top of Bakrota in Dalhousie. The outturn of cocoons returned by the rearers, however, grew less and less ; the fatal disease of pebrine continued to spread. Messrs. Lister considered that Irrigation Department were unfairly raising the rent of the old Workshops at Madhopur against them, and finally after continued loss and disappointment they transferred the whole filature to the Dun : Mr. J. H. Herdon, now manager of the Sujanpur Sugar and Carbonic Acid Gas Works, was the last manager of the filature.

After 1892 sericulture continued to be carried on in a desultory way at various centres such as Sujanpur and Narot in Pathankot Tahsil, Bahrampur in Gurdaspur Tahsil and round Nainakot in Shakargarh Tahsil, until, in 1909, Government, encouraged by the success of the industry in Kashmir, once more attempted to revive it in Gurdaspur. The experiment took the old form of the distribution of disease-free seed, obtained from the Sericulture Department of Kashmir : just before the mulberry leaves begin to shoot 26 oz. of seed were distributed at the rate of 1 oz. to each of 23 rearers who were in the habit of rearing silk worms and 3 oz. to Khan Bahadur Shaikh Ghulam Sadik of Amritsar who had arranged to rear the worms by modern methods at Sujanpur. The experiment among the Nainakot rearers was not very successful : the weather was unfavourable at critical periods : the people could not be induced to desert their old bad methods of keeping the worms and adopt the advice given them : they also failed to dry the cocoons properly, with the object of obtaining a higher price from Government for the greater weight of the damp cocoons. The subordinate of the Sericulture Department, Kashmir, who was sent to assist the rearers, was totally ineffective. It is unnecessary to discuss the causes of the disappointing result in detail, but the words of Mr. Lister (afterwards Lord Masham) in connection with his own enterprise in this district may be quoted ; he thus explained the reasons why any modern methods of sericulture cannot be expected to prosper in the hands of the Punjabi villager :—

"The whole art and mystery may be expressed and enforced in three or four simple rules. First, sound seed ; second, air, space and cleanliness ; third, regular feeding ; fourth, suitable rearing houses. And where do you find these conditions in the native cottage ? . . . . . All the wealth of India could never make silk-worms thrive in the hands of dirty, careless, ignorant native rearers. I have paid for my learning, as for many years I joined Government in giving prizes ; but I soon saw it was perfect waste of time and money."

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Sir Louis Dane, who, as Lieutenant-Governor, instituted the 1909 experiment, had in 1892, as Settlement Officer, recorded the following opinion:—

"The climate is really not very suitable. The thunderstorms in March and April, when the worms are going into their last sleep, are fatal to large numbers, and such storms are of frequent occurrence. Again, notwithstanding the introduction of the China mulberry, which comes into leaf about 14 days earlier than the country tree, the season becomes too hot before the cocoons are formed, while it has been almost impossible to eradicate the disease which affected the imported seed almost as much if not more than the native stock. Government did all it could to foster the industry by the planting out of mulberries as roadside avenues, free grants of land to Jaffir, a leading grower, and favourable leases of Government land at Madhopur, Gulpur and Gurdaspur to Messrs. Lister & Co., but the result has proved a complete failure and the people must be left to potter along in their own way."

For the last four years (1910—1913) Khan Bahadur Shaikh Ghulam Sadik, whose name has already been mentioned, has been endeavouring to raise silk in the district for his filature at Amritsar, paying Rs. 2-4-0 a seer for dry cocoons. This gentleman has been taking a lease of all the District Board mulberry trees on behalf of cottage-rearers and distributing seed to them. His enterprise has not met with the success which it deserves, as the following notes on results taken from the Director of Agriculture's reports will shew:—

"*1910.*—199 ounces of seed distributed: outturn $17\frac{3}{4}$ maunds of dry cocoons; each rearer insisted on taking at least four times as much seed as he could deal with. Progress in convincing the Gurdaspur rearers that their methods are susceptible of great improvement will be very slow.

1911.—274 ounces of seed distributed. Shaikh Ghulam Sadik only got 33 maunds 16 seers of dry cocoons, whereas he might have hoped for 110 maunds.

1912.—306 ounces of seed distributed: outturn 44 maunds. No progress has been made in the methods of rearing: each rearer has far more seed than he can find accommodation for. The worms are spread on the ground without even matting under them: they are overcrowded and underfed.

1913.—The amount distributed was 399 oz. and the yield was only 47 maunds of dry cocoons. 70 kilogrammes (77 seers) of green cocoons, equivalent to about 25 seers of dry cocoons, is the outturn in France of 1 oz. of seed. So with very moderate care on the rearers' part the yield in Gurdaspur should have been at least 120 maunds. The bad results are due to the rearers' inveterate adherence to dirty methods and underfeeding. They will not listen to advice and even the loan of racks which I tried this year in one village did not result in the racks being used. I fear we shall not be able to convert the rearers in this district to better methods."

It is to be feared that Sir Louis Dane's earlier opinion, read with that of Lord Masham, is only too well founded, so far as any scientific rearing of silk-worms by approved methods in the near, or even the middle, future is concerned. A good deal of country seed has always been imported at a very low

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price, it is hatched out in enormous quantities and the death-rate among the worms is very high. But this wasteful method suits the cottage-rearer, his existing knowledge of rearing merely renders him proof against advice and he 'may be left to potter along in his own way'.

Silk-weaving at Batala.

146. A flourishing outpost of the Amritsar silk-weaving industry is situated at Batala : the different designs of *azarbands*, or trouser-strings, of this place are well known : they are made of English thread obtained from Amritsar. The workers are mostly women who are said to number 600, mainly of the Kakkezai caste : the men-folk are usually shop-keepers and carry on the trade in these *azarbands* : exports are chiefly to Amritsar, Lahore and Jammu. Prices vary from Re. 0-8-0 to Rs. 2 according to quality. Mr. Latifi suggests that a society on the lines of the Benares silk-weaving association would prove successful at Batala where the weavers are, he says, a compact and orderly community.

Silk-weaving at Chak Dodu.

147. At Chak Dodu, in the Shakargarh Tahsil, some half dozen families of *Julahas* weave *daryai* cloth with materials supplied by *Seths* of Amritsar, to whom the products are then sold. Two kinds of spools are used, one of pure silk and one of inferior silk (*gola*) and the result is a kind of rather coarse material of different colours, which are rather less crude than is usual in local coloured work. The width of the material is 12 *giras* or 8 *giras* (a *gira* is equivalent to 1-16th of a yard or $2\frac{1}{4}$ inches) : the former fetches Rs. 18, and the latter Rs. 12 per hundred yards. It takes a weaver about 7 months to weave 100 yards of the 12-*gira daryai* ; the work seems poorly paid, but the people are well-off and contented enough, and of course whole families, women and children included, can work at this industry : so a better living is made by these people than would appear at first sight. *Julahas* in Sukh Chak, Nagrota, Bagga and Kasana also manufacture *daryai* : there are estimated to be 58 looms at work in these four villages : the prices are Rs. 2 more than in the case of the Chak Dodu *daryai*. Pure silk *daryai* is also made and the price is Rs. 18 for the 8-*gira* material per hundred yards.

Pattern stamping on cloth

148. The industry of stamping patterns on cloth, which used to be carried on to a considerable extent in Bahrampur, has now practically disappeared and only one family of *Chimbas* continues it. The profits are very small and the population of *Chimbas* has almost died out.

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Charpai-legs.

149. At Marara, Makaura and Jhabkara, near Bahrampur, *charpai*-legs are manufactured by *tarkhans* and are exported in fair quantities to Amritsar and elsewhere: prices vary from Re. 1-8-0 to Rs. 10 according to the quality of the wood, the work, the size and the colouring: the profits are good and the *tarkhans* are prosperous.

Dyeing.

150. As pointed out by Mr. Latifi, the importation of synthetic dyes has driven the indigenous dye-stuffs almost entirely out of the Indian market. Even the cultivation of *kasumbha* (safflower), which used to be a good deal grown in the Chak Andhar, has almost died out. The Dhariwal Mills employ a dyeing expert and have a very well-equipped dyeing department. Elsewhere the *rangrez* is found scattered about in various parts of the district, but doing an insignificant trade.

Leather.

151. Dinanagar used to be a centre for the manufacture of country harness and saddlery, but the products of Cawnpore and Meerut have already superseded the local industry. A few *kathis*, a native form of saddle, are still manufactured by two or three *mochis* in Dinanagar and sold locally; there is no export. A few *mochis* in Pathankot and Gurdaspur make boots in the European style for native wear, but elsewhere in the district only the native shoe is made and this industry requires no notice.

Fibres.

152. Muhammadans and Hindus both work in fibres. Certain branches of the industry are monopolised almost entirely by members of particular castes. Thus *munj* twine is made by the Hindu Labanas and Jat *zamindars*, and the long narrow strips of sack-cloth, or *pattis*, and bags, or *thailis*, by the Musalman *telis*, while the grain-sieves, called *chhaj*, are the speciality of Changars. *Munj*-matting is principally manufactured by boatmen, and *tappars* of *tat* or sack-cloth by a clan calling themselves Turks of Gharota Kalan in the Pathankot Tahsil and Dhamrai in Gurdaspur. Gharota Kalan is a well-known centre of the fibre industry and is said to send out every year Rs. 2,000 worth of twine, and Rs. 1,000 worth of an inferior grade of sack-cloth, made of *san*, brought from the Nurpur Tahsil of the Kangra District. Shahpur Kandi also obtains the raw material from the surrounding villages and yearly exports Rs. 5,000 worth of twine, in addition to a quantity of the fibre.

Munj, which grows so freely and rapidly in sandy soil near marshes and rivers, is popular with the cultivator, as it is easily collected and can be made into excellent ropes which are elastic

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Fibres.

and stand moisture very well. *Munj*, indeed, serves a multiplicity of purposes; cords and ropes, packing cloth, drying-sheets for grain, flooring and roofing pieces and nets for holding chopped straw are all manufactured from *munj*. The plant grows wild along the Dhaia and the old bed of the Chakki, and in the hill and Kandi circles is also cultivated in regular fields. A long fibre suitable for rope making is derived from a shrub called *sankukra* (Hibiscus cannabinus) which is cultivated mainly as a border to cane and cotton fields.

The *kana* reed yields another useful fibre. The *dib* bulrush, which grows in the *bets* and in *chambhs*, can be applied to the manufacture of *safs* or coarse kinds of matting, and a certain amount of this is carried down the Ravi to Lahore in the rains. The head soaked in oil is used as a lamp in the *chambhs*.

Date-palm leaf is woven into matting and the branches of *dhamman* (Grewia Elastica), a characteristic tree of the Outer Himalayas, yield a rope fibre after the sticks have been well soaked in water. *Dhamman* ropes unfortunately do not withstand the dryness of the plains.

In Mr. Latifi's opinion, there is an opening at Shahpur Kandi, eight miles by road from Pathankot, for a fibre factory run on modern business lines: the raw material is abundant there and would be still more so, he says, if a regular demand arose; Gharota Kalan, he adds, is not a suitable centre.

153. Bamboo-factories flourish in Pathankot where there are six of these factories. The bamboos come from Katuha and Nurpur as well as from the low hills and submontane of Pathankot Tahsil and are put to various uses: they form the poles of *doolies*, shafts of *ekkas*, supports for thatching, the frame-work of lattices, lances for cavalry regiments, weapons for *chaukidars*, etc., etc. Dumnas also weave the split canes into matting, baskets, sieves, etc. Prices have gone up greatly and although small canes are still sold, as they were 20 years ago, at Rs. 2 per hundred, the larger and better poles fetch anything up to 12 annas and even a rupee each. Bamboos.

154. *Khas*, the root of *panni* (Vetivera zizanioides), obtained from the *chambh*, used to be exported from Kahnuwan to Amritsar, its oil being extracted as a perfume and for flavouring *sherbet*: but the export has recently ceased. Perfumes.

155. The Batala Tahsil is said to export 100 maunds annually of *lac*. Of *lac* in the district there is abundance. It appears chiefly on the *sirris* and *ber* tree, the insect in the course of time ruining the tree. *Lac.*

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Lac.

A great deal of *lac* used to be collected during the months of January and February in the Berian Bagh near Dinanagar, and as much as Rs. 400 to 500 a year was paid to Sirdar Dial Singh of Majitha, who was the manager of this common on behalf of the townspeople. The trees were lopped, and the branches, after the leaves had been beaten off for fodder, were collected and the *lac* scraped off. This was boiled and purified until it was brought into a marketable state. The Dinanagar trade, however, has now ceased and there is little export of *lac* from the district, beyond that from Batala.

Glazed ware.

156. At Batala three men turn out ordinary inkpots with a kind of varnish.

New Egerton Woollen Mills, Dhariwal.

157. Mr. Latifi's "The Industrial Punjab" (page 50) has the following account of the New Egerton Woollen Mills of Dhariwal :—

"The New Egerton Woollen Mills, Limited, of Dhariwal, represent the factory industry of the province. Originally established in 1882, the company went into liquidation seven years later, when it came into the hands of the present management. It now has a capital of six lakhs of rupees in ordinary and an equal amount in 7 per cent. preference shares, and its dividends for the three years 1907—09, *viz.*, 10, 10 and 15 per cent., show that it is flourishing. Its annual output of manufactured goods does not fall short of 11,000 maunds. The mills are situated on the Bari Doab Canal and are worked by water-power, supplemented by steam during canal closures. The staff includes fourteen Europeans, *viz.*, a manager, four assistants, and nine overseers, in addition to over a thousand hands recruited from the surrounding villages. A co-operative society has been started among the latter, and a model village is in course of construction for their accommodation. The Army, Police and other departments are large purchasers of woollen goods, but the management complain that a smaller proportion is taken from the Indian mills than is justifiable on grounds of ecomony or efficiency. The enterprise was started with the express object of meeting the demands of Government, and now manufactures every kind of high class hosiery, worsted and woollens of a quality admittedly equal, if not superior, to any imported article of the same price ; but with the lapse of years it finds official patronage reduced almost to nothing. The orders received for the Indian Army amounted to Rs. 5,74,000 in 1896, but only Rs. 75,715, or about 6 per cent. of its total sales, in 1909."

Sugar factories.

158. Of the sugar factories of the district, Mr. Latifi "(The Industrial Punjab," page 199) writes as follows :—

The *khanchi.*

"The methods of the *khanchi* (indigenous sugar-manufacturer) need not detain us, for, besides being unsavoury and grossly inefficient, they are of little more than historical interest. The industry is dead except in a few villages of the Gurdaspur, Hoshiarpur and Ludhiana Districts, and no improvements can ever recall it to life. Even the Hadi process, which has achieved popularity in the United Provinces, will not help, as it is unsuited to Punjab conditions. It was tried at Malsian and Srigovindpur by private individuals, and found unsatisfactory."

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The Sujanpur Factory.

159. The only modern sugar factory in the province is the one at Sujanpur. It has two water-propelled mills capable of crushing 140 tons of cane daily, but, as it is located on the edge of the cane-area of the district, it can obtain only half that quantity. The rest of the machinery is driven by steam (40 H. P.). The megass is used as fuel, but about 200 tons of coal, and 20,000 maunds of wood, are also consumed every year. Besides a European managing director and Parsi engineer, the staff includes from 300 to 400 coolies during the crushing and refining season, which lasts from four to five months (March to November). The majority of these are recruited from the Sialkot District, as the proximity of the headworks of the Bari Doab Canal has made local labour very scarce.

The cane of the locality is the *káthá*, which is bought standing, and is cut and cleaned by the employees of the factory. No advances are made to the cultivators, but half the price is paid on purchase, and the balance when the cane has been removed and the area finally measured. The management have made great efforts, by the offer of better prices, to induce the cultivator to improve his methods, and the results have so far been encouraging.

The following interesting statistics of the working of the factory have been furnished through the courtesy of the manager :—

Season.	Cane-area bought.	Price per *ghumao*.	Total uncleaned cane	Yield of juice	Yield of sugar.	Yield of molasses.
	*Ghumaos.**	Rs. A P.	Maunds.	Gallons.	Maunds.	Maunds.
1904-05	730	19 11 10	148,004	300,650	3,647	2,500
1905-06	212	20 9 6	33,648	61,950	1,068	1,025
1906-07	428	31 9 5	92,532	183,750	2,574	1,127
1907-08	408	28 0 8	83,616	180,775	1,649	1,162
1908-09	568	29 14 6	99,382	212,975	2,863	1,500
Average ..	469	25 15 7	91,436	188,020	2,360	1,463
	Acres.	Per acre.	Per acre.	Per acre	Per acre.	Per acre.
	390·54	£2-1-7	9·2 ton	481·4 gallons.	·24 ton	137 ton.

*1 *ghumao* = $\frac{5}{8}$ of an acre.
8 gallons of cane juice = 1 maund = ·039 ton.

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The Sujanpur Factory.

These figures do not indicate the yield of rum distilled from the molasses and the washings of the sugarcane, which is a good source of profit. It may be mentioned here that attached to the factory there is a workshop for making soda-water machines, as well as plant for generating carbonic acid gas from *gur* and molasses, which are bought for the purpose.

Almost all the sugar is consumed in the Amritsar and Gurdaspur Districts, where it is in great demand, especially for sweetmeats at marriage festivals. Customers have been known to leave hundreds of rupees with the manager for long periods in order to be sure of their supply.

The nominal capital of the factory is Rs. 1,60,000 on which it has paid a dividend of 10 per cent. since 1904, when it commenced the manufacture of carbonic acid gas.* It had been a failure before. The causes of its present success may briefly be said to be: (*a*) utilisation of by-products and manufacture of carbonic acid gas, (*b*) efficient management, (*c*) scrupulous avoidance of the use of blood, bone-black and other impure substances†, and (*d*) the prevalent belief that the sugar, though slightly dearer, is sweeter than imported sugar.

Other sugar factories.

160. Two years ago the Amritsar Distillery Co. set up a refinery in connection with their works, with the intention of feeding it with *ráb* from branch factories and boiling the juice on the "Hadi" system at Chhina, Batala and Jaintipur on the Pathankot Railway. Unfortunately the death of Mr. Dyer and the insolvency of the Distillery caused these factories to be given up and the buildings in this district have been sold, but it is tolerably clear by now that the Hadi process is not adapted to the circumstances of the Punjab.

Dalhousie Brewery.

161. The Dalhousie Brewery was established in 1881: it is situated about 1½ miles from Dalhousie, below the road to Bakloh and just above Panchpool. It is the property of a private company and has a European manager. The land on which it stands, an area of about 5 acres, is leased from the Municipal Committee on a premium of Rs. 1,200 per annum and an annual rent equal to the taxes assessable on similar land in the station. The company has imported a turbine, and the

* The figures are rather deceptive. The original capital in 1877 was Rs. 4,00,000 The company went into liquidation in 1886, when the factory was bought up for Rs 60,000 by a private syndicate, which added new plant to it at a cost of Rs. 1,00,000 It is incorrect to say that the real assets of the company are worth Rs 5,00,000, but they are doubtless more than Rs. 1,60,000.

† The bleaching is done with sulphuric acid generated by burning sulphur.

brewing and crushing of the malt, etc., is all done by water-power. Hops are obtained from London or Nuremburg in Bavaria and staves for the casks come from Trieste; old Commissariat casks are also bought at Karachi. Most of the work is done by contractors, but from 30 to 50 hands are employed for eight months in the year. The annual outturn is about 600 hogsheads of ale and porter which is supplied mostly to British troops.

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Dalhousie Brewery.

Belna and *kharas* factories.

162. Batala is noted for its iron *belna* manufactories of which it possesses no less than 9, mostly owned by Muhammadans. Four of these are of old standing and the remainder have been started within the last 6 or 7 years. They all manufacture *belnas* and *kharases* with the aid of steam-power: each employs about 20 hands and turns out about 200 *belnas* and 60 *kharases* per annum. The price of a *belna* varies from Rs. 20 to Rs. 70, and that of a *kharas* is about Rs. 40. *Belna*-manufacture is obviously prospering and is the most thriving industry in Batala. One firm turns out wooden *belnas* at prices varying from Rs. 15 to Rs. 30, but these are not now in much demand. One firm also manufactures rice-hullers and flour-mills: the former are said to be very reliable machines, and it is claimed for them that they are superior to the imported article.

Carpets.

163. Of the four carpet-factories, which used to exist in the district, that at Pathankot and one at Batala have closed down, and the only factories now working are two branches (one at Batala and one at Sujanpur) of Khan Bahadur Shaikh Ghulam Sadik's Amritsar establishment. These factories are run on the same lines. At Batala there are 7 looms, each in charge of an *ustad*, who is responsible for the work and is paid by the piece, the rate of payment being reckoned according to the number of stitches and the general quality of the work. The *ustad* employs from 4 to 6 boys on a loom: these are paid by him and not by the owner of the factory. As quite young boys can work these looms, the poorer people of all classes are willing enough to let their children take up this employment at which they can earn from Rs. 5 to Rs. 10 a month.

Effect of growth of factories on internal migration and wages.

164. The effect of the growth of factories on internal migration is insignificant. As has been already said, the Sujanpur factory obtains its labour chiefly from Sialkot and the only other factory which employs any but a few hands is that at Dhariwal. Here numerous *Julahas* and other menials are employed, the total staff now numbering over 1,400. The villages near Dhariwal complain bitterly of the scarcity of

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Commerce and Trade.

Effect of growth of factories on internal migration and wages.

labour so caused, and undoubtedly these villages suffer considerably, not only from lack of hands but also from the inflation of rates at which labour is to be hired. But it does not appear that villages outside a very few miles radius of Dhariwal are prejudicially affected; the number of employees at the mill is insufficient for this. Of the 1,400 men employed, roughly 500 are engaged on piece-work and 900 on daily labour. The average income of the former, who are *Julahas*, *darzis* and Kashmiris employed on the knitting of socks and jerseys, comes to about Rs. 15 per mensem, and of the latter, the pay is from 5 annas a day for coolies to Re. 1-8-0 a day for mechanics, from 5 annas to 2 annas a day for women, and from 1½ annas to 3 annas a day for children. Twenty years ago coolies used to get 2 annas and mechanics 8 annas: ten years ago these wages had risen to 4 annas and 14 annas, respectively. The rise in the price of skilled labour is therefore disproportionately greater than that in the wages of unskilled labour. The material condition of these operatives has greatly improved, and with the completion of the new lines of dwellings and quarters at Dhariwal should improve still more in the future.

Section F.—Commerce and Trade.

Trade—(a) By rail.

165. The exports of the district are naturally enough confined almost entirely to agricultural products, mainly wheat, *gur*, rice, oilseeds and mash, with bones, hides and skins. Imports are piece-goods and tobacco, articles of household use, and luxuries.

The trade of the district is now carried on mainly from the distributing and collecting centres of the different stations on the railway, chiefly Batala, Sohal, Gurdaspur, Dinanagar, Sarna and Pathankot. The main routes converging on to these stations are as follows:—

Batala: the trade of the whole of the tahsil centres here and communications with all parts of it are direct and easy: the western and north-western parts of the Gurdaspur Tahsil also use Batala as their most convenient station. In addition, the trade of the west of Shakargarh and the traffic with Jammu, which comes into the north of that tahsil, largely comes on to the railway at Batala, crossing the Ravi at Dera Nanak.

Sohal has a good deal of the wheat and *gur* traffic from the best portion of the Nahri circle of the Gurdaspur Tahsil. At Gurdaspur station assemble most of the principal buyers

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Commerce and Trade.

Trade—(a) By rail.

of grain not only for export but also for the Amritsar market. The new *mandi* at Gurdaspur does a thriving trade in grain from the centre of the tahsil, and the greater portion of the trans-Ravi trade, including that of Shakargarh and the neighbouring parts of Jammu, also comes here. Dorangla, on the bank of the Ravi, used to act, and still to a great extent acts, as a collecting centre for the trans-Ravi traffic, sending it on thence to the railway at Gurdaspur. A large quantity of rice from the Hoshiarpur District comes into Gurdaspur *viâ* the Naushahra ferry on the Beas, but if the projected railway to Mukerian is made, this trade will doubtless be transferred to the new line.

Dinanagar also has a considerable export of rice from both sides of the line, but especially from the Chak Andhar of Pathankot Tahsil and the adjacent tract of Jammu, *viâ* Narot.

Sarna also is a great collecting centre for rice.

Pathankot as the rail-head is the depôt for all trade to and from the hills, including the Kangra District, Jammu and the Chamba State, and a very considerable volume of both outward and inward traffic passes through here. Supplies of all kinds are imported for the troops and civil population of Dalhousie, Balun, Bakloh and Dharmsala, and in the summer especially the road traffic to and from these places is very heavy.

(b) By road.

All along the north of the district are trade routes leading to and from Jammu. Up to 1907 trade registration posts were maintained opposite Basohli in Jammu, at Narot Jaimal Singh in the Chak Andhar and at Chak Bika, Sukho Chak and Dandot in the Shakargarh Tahsil. In that year the futility of keeping up these posts, from which the statistics were quite unreliable, was recognised and they were abolished. Where the Ravi forms the boundary with Jammu, the ferry at Basohli is the principal point of entrance of Jammu traffic: *ghi* is the chief import, but quantities of fruit, nuts, honey, cinnamon, violets, *kut*, *dandasa* and the hill grains, *siwal* and *phulan*, are also brought in, and, if prices on this side are high, maize and wheat also. These hill imports generally come to Basohli and crossing the river there pass along the ancient road through Phangota to Shahpur on the Ravi, 5 miles above Madhopur. This town used to be the great entrepôt of the Jammu trade much of which now naturally goes on to the rail-head at Pathankot. Traffic from Chamba used also to come here, but this now tends to seek the main road *viâ* Dalhousie to Pathankot.

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Commerce and Trade:

Trade—(*b*) By road.

Nevertheless, Shahpur manages to retain a considerable trade in hill-products. The modes of carriage are various; owing to the roughness of the roads coolies are mainly used and less often ponies, donkeys and mules. There is no special caste engaged in the traffic: all classes of hill-people engage in it or *beoparis* go across from here. The traders take back mostly salt and tobacco, also *shira* for mixing with tobacco, *gur*, piece-goods and *susi*. Gauri Shah, who is the principal trader in Shahpur and much respected, estimates that, whereas thirty years ago Rs. 30,000 of salt used to be sent out from Shahpur yearly, the trade is now worth only Rs. 2,400. Salt for Jammu now usually goes to Jammu itself by rail and is distributed from there. On the other hand, the value of tobacco has increased from Rs. 800 to Rs. 3,000, *shira* from Rs. 800 to Rs. 5,000, *gur* from Rs. 3,000 to Rs. 4,500, and piece-goods from Rs. 10,000 to Rs. 25,000. These figures, which of course are only approximate, indicate that the standard of living among the Jammu hill-people is decidedly rising.

Three roads lead from the Jammu Province into the Shakargarh Tahsil at Chak Bika, Sukho Chak and Dandot. The main exports are *ghi*, rice and hemp, and from the Sambha Tahsil a kind of woollen blanket called *gararu* is brought in: there is also some manufacture (about Rs. 3,000 worth) of these blankets by Kashmiris of Chak Nihala, to which place the Sambha-made blankets come: they are sold locally for Rs. 3-8-0 to Rs. 4 or are sent to Dalhousie for sale there. The *ghi* and *san* is used locally or sent to Dorangla in the Gurdaspur Tahsil: the rice is the fine scented *basmati* grown in the Chak Andhar of Katuhal.

The exports are chiefly piece-goods, *kariana* (all kinds of nuts and spices), and iron and household utensils, which are usually fetched from Amritsar by shop-keepers of the Jammu Province on camels, ponies or pack-bullocks hired from *telis* in Sukho Chak. This place is the main mart of the trade: the Dandot road is chiefly used for imports of *ghi* from Udhampur. One shop-keeper out of the 3 or 4 in Sukho Chak in a typical month sold Rs. 362 worth of piece-goods for export across the border. Salt also used to be exported in large quantities by these routes, but the import is now prohibited by the State authorities who have customs posts all along the border. Salt has now to be bought at centres like Jammu and Udhampur. Export of cows and bullocks from Jammu is also prohibited.

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Commerce and Trade.

The trade in wood and sleepers.

166. The Ravi forms a highway* down which large quantities of timber are floated by the lessees of such of the Chamba forests as lie on the watershed of this river. For the last 10 years these forests have been exploited by Messrs. Spedding & Co., who have their head-quarters at Lahore. From October till May the Upper Bari Doab Canal, which takes off at Madhopur, utilises all the water of the river and it is not until there is a surplus, usually in May, that any of the river is allowed to go through the dam and down its proper bed. Hence sleepers brought down in November have to be temporarily stacked at Shahpur, 5 miles above Madhopur, until such time as they can be tied into rafts and taken down the river to Lahore; where they are sold. Timber is caught at Shahpur by means of a boom stretched diagonally across the river which directs sleepers into a channel excavated in the bank, which in turn leads into a large pool abutting on the depôt ground where the sleepers are stacked. Owing to the inaccessibility of the railway from Shahpur, it is of little use as a sale depôt. A certain number of sleepers are carted to Pathankot and there handed over to the North-Western Railway, but owing to the distance and the indifferent means of communication it is found cheaper to raft the timber to Lahore, even though it means a loss of about six months' interest. The course of a sleeper below Shahpur is beset with dangers. During the smallest of floods it is a matter of extreme difficulty adequately to control timber when afloat, and sleepers breaking loose at Shahpur are liable to be carried into the canal. It is estimated that of sleepers entering the canal at least 30 per cent. are stolen and, to increase the loss, a fine of annas 8 is levied by the Irrigation Department on every scantling or sleeper that finds its way into the canal: should the river gates be open and the scantlings take the course of the river, the loss by theft is roughly 10 per cent. For many years *deodar* was the only timber exported from Chamba, but latterly *kail* (*Pinus Excelsa*) and fir have been worked down in considerable quantities. At present the proportion of yield is roughly 60 per cent. *deodar*, 30 per cent. *kail* and 10 per cent. fir, whilst the average worth of the timber exported, taken at a rough figure, should approximate 3 lakhs of rupees.

*Under the Forest Act the control of the river bank is vested in Government which becomes owner of all waif timber unless it is marked with a registered mark. From Basohli downwards the river is in charge of a special Forest Department official, styled the River Range Officer, with head-quarters at Madhopur and working under the Divisional Forest Officer, Lahore. Timber floated down the river can only be collected at Shahpur, Baheri, Akhrota and Trimmu and removed under a pass issued at fixed fees by the Range Officer. Waif timber is collected at Trimmu and, if unclaimed, becomes Government property. This branch of the Forest Department brings in little profit and in some years is worked at a loss.

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Section G.—Means of Communication.

Means of Communication.

Railway.

167. The Amritsar-Pathankot Branch of the North-Western Railway was opened in 1884 and enters the district just this side of Jaintipur Station: its total length in this district is 49 miles: it carries a large passenger and goods traffic, but is not remarkable for comfort or speed, mainly by reason of the laying of the permanent way. An extension from Pathankot to Nurpur in the Kangra District is projected *viâ* the Chakki bridge near Harial. A survey has also been made for a line to take off from Batala and run north to Dera Nanak, thence crossing the Ravi and cutting across the extreme south-western corner of the Shakargarh Tahsil into the Sialkot District. Another project connected with this is that for a line from Amritsar to enter the Batala Tahsil near Singhpura, thence proceeding to Dera Nanak to join up with the line just described.

The Railway has fortunately never been required to deal with famine conditions in this district, and it has had no noticeable influence on language or religion. Its influence on prices is more difficult to gauge, but it is probable that it has the normal effect of keeping the price of imported articles down and those of the exported articles up. Messrs. Ralli Bros. buy large quantities of wheat at different stations, and especially at Gurdaspur, on the line: traders also come from Amritsar to buy rice and other food-grains which are collected by *arthis* at the various stations. Stocks of grain have therefore no chance to accumulate, with the fall in prices which is the natural consequence of accumulations.

Roads.

168. The principal roads in the district are the Dera Nanak-Batala, Batala-Aliwal, Batala-Srigobindpur and Batala-Kadian in the Batala Tahsil; the Zafarwal-Gurdaspur, Gurdaspur-Nowshera, Ganji-Dorangla and Shakargarh-Dera Nanak in the Gurdaspur and Shakargarh Tahsils; and the Pathankot-Madhopur and Pathankot-Dalhousie roads in the Pathankot Tahsil. The last-named road is maintained by the Public Works Department solely from Provincial funds. About 47 miles of the old highway between Amritsar and Pathankot pass through the district, the road running more or less parallel to the Railway. This road is a Government road transferred to the District Board, who maintain it from a Provincial grant, which is only sufficient to keep it in repair as an unmetalled road. Similarly, 22 miles of the Zafarwal-Gurdaspur road that lie in the Shakargarh Tahsil are maintained by the District Board from a Provincial grant. On the Batala-Aliwal road, also belonging to Govern

ment, the District Board has been authorized to levy a toll instead of receiving a grant for its maintenance.

CHAP. II-G.

Means of Communication.

Roads.

The total mileage of metalled and unmetalled roads solely maintained by the District Board is 38 and 528, respectively. The total mileage of metalled and unmetalled roads maintained from Provincial grants are 7·7 and 69·7 respectively.

The following feeder roads have been growing in importance of late years :—

> The Ganji-Dorangla, which is being metalled ; the Batala-Aliwal, already metalled but in a bad state ; and the Batala-Kadian which is intended to be metalled as soon as funds are forthcoming.

The Public Works Department have recently metalled and made over to the District Board 5 miles of the Gurdaspur-Nowshera road, so that the whole road to the Beas river bank from Gurdaspur is now metalled.

The general condition of the roads is bad, and is likely to remain so, for lack of sufficient funds for maintenance . An effort is being made, however, to bring the metalled roads into good condition.

Navigable rivers.

169. The Ravi and Beas are both navigable for country craft, the Ravi below Madhopur and the Beas throughout its course within this district. Above Madhopur, although there are boat ferries at Basohli, Srinagar and Shahpur, the rapids in the Ravi make it navigable only on distended bullock-skins with a charpoy fastened between them : the contrivance is called a *katnau* or "bed-boat." The mooring-places and ferries, and the distances between them, are shown below, following the downward course of each river :—

Rivers.	Stations.	Distance in miles.	Rivers.	Stations.	Distance in miles.
Ravi ..	Basohli	0	Beas ..	Kathgarh	0
	Srinagar	12		Bianpur	6
	Shahpur	4		Pakhowal ..	5
	Baheri Buzurg ..	8		Noshahra	4
	Sundar Chak	4		Mauli	5
	Jhela	4		Bagarian	5
	Akhwara	5		Mullanwal	4
	Gidri	2		Bhet	5
	Jalala	5		Srigobindpur ..	6
	Trimmu	4		Bagheh	5
	Dorangla	4			
	Dera Pathanan ..	4			
	Chandu Vadala ..	5			
	Bolaki Chak	4			
	Dera Nanak	5			

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Famine.

Navigable rivers.

The boats on the Beas, as compared with those on the Ravi, have a very low gunwale; their prows, on the other hand, are much higher, and so catch more wind. They are of the kind commonly found on all Punjab rivers, except that they are smaller. The navigation of the rivers is sufficiently dangerous in the rainy season to prevent merchants sending goods down the rivers. The navigation season is fixed by the crops. A large quantity of *gur* and *shakkar* used to go down the Ravi in February, March and April to Multan and Lahore. The boats return empty as a rule, though some bring cloth. On the Beas *shisham* wood is carried down to Ferozepore. The boats generally return empty. The boats are generally of 40 maunds burden, being seldom of more bulk on the Beas owing to their faulty construction. It is rare for them to rise above 250 maunds in bulk on the Ravi. Occasionally boats go down as far as Rori Bhakar, but this voyage is quite an event in the lives of the boatmen. With the exception of Bagheh the Beas ferries are all under the control of the Hoshiarpur District authorities.

The "*kishti-nahr.*"

170. It was at first intended to have a boat-canal taking off near Tugial bridge and coming down past Dinanagar, but the project never assumed definite shape: the canal, however, was dug and is still known as the "*kishti-nahr.*" Its course is clearly to be seen starting near Tugial and passing Dinanagar, re-joining the canal just above the Sirkian bridge: the Dinanagar *rajbaha* now runs in the bed of this channel from Tugial as far as the bridge over the Sirkian escape on the Amritsar-Pathankot road just north of Dinanagar.

Postal arrangements.

171. In 1892 there were 35 post offices of different classes in the district: the number has now increased to 23 sub-offices and 94 branches* as given in Table 31; the necessity for this extension is apparent from Table 32 which shows an enormous increase under each head of business during the last 20 years.

Telegraph offices.

172. There are 11 postal telegraph offices, and telegrams are also accepted at the railway stations on the Amritsar-Pathankot branch.

Section H.—Famine.

Famine.

173. The district has never suffered from famine properly so-called. The Bharrari of Shakargarh Tahsil is the only really insecure tract in the district, and Sir James Lyall noted in the

*NOTE.—The Basohli branch office and the Kathua sub-office with its branches have been wrongly shewn: they are situated in Jammu territory.

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Famine.

Famine.

orders on the Shakargarh Assessment Report of 1891 that he had himself twice seen something like famine in that tract. Even in the bad years 1899-1900, however, it was unnecessary to do more than discuss plans for meeting the effects of a third successive crop failure which fortunately never came. Under present conditions and with the increased mobility of, and demand for, labour, it may be hoped that the need for famine relief in Shakargarh will never arise.

CHAP. III-B.

Civil and Criminal Justice.

Civil courts and litigation.

Under the recently sanctioned scheme for the re-organisation of judicial work, the present arrangements for civil work will be considerably modified. The existing District Judge will be superseded by the District and Sessions Judge, with Additional or Sub-Judges and Munsifs under him : he will become the principal civil court of the district with full powers to deal with original civil suits : he will also be the District Court for the purpose of the Guardians and Wards Act, the Insolvency Act and other Acts in which duties are at present assigned to the District Judge. He will have certain powers of delegation. He will also be the Sessions Court for the district.

The average yearly institution of civil suits is about 10,000, and there is the ordinary fluctuation of a few hundred cases every year. The agricultural banks which are scattered all over the district, especially in Shakargarh and Gurdaspur Tahsils, exercise a wholesome check on the taking of extravagant loans and *pro tanto* reduce civil litigation. The principal class of civil suits in the district is that relating to money or moveable property. As in other parts of the Province, there is at present a rush of applications for declarations of insolvency and for the appointment of guardians of the person and property of minors : these applications are ordinarily dealt with by the District Judge.

Legal practitioners.

177. The number of legal practitioners is at present 48, comprising 6 barristers-at-law, 11 first-grade pleaders, 16 second-grade pleaders and 15 second-grade mukhtars.

Petition-writers.

178. The scale of petition-writers sanctioned by the Chief Court is 25 first-grade and 60 second-grade, of whom at present there are 20 first grade and 56 second grade.

Criminal justice.

179. Serious crimes are comparatively few and are in many instances the work of residents of other districts ; petty offences, however, are constantly on the increase, and cases of abduction of women are common, especially in Shakargarh Tahsil. For offences of all classes the percentage of convictions to cases admitted is as a rule low, and this is due to the very small percentage obtained in petty cases ; large numbers of false and frivolous complaints being entertained by the lower classes of courts. Cases of assault and minor cases of criminal trespass or mischief are often filed on the shallowest grounds. Cases of security for keeping the peace are now frequently brought. In 1913 the percentage of convictions under all heads of the Indian Penal Code was 8·88.

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Land Revenue.

Honorary Magistrates.

180. The following table shows the names and powers of the Honorary Magistrates in the district :—

Name.	Powers.	Area of jurisdiction.
Thakar Harkishen Singh of Kishenkot..	2nd class, 20th December 1909.	Gurdaspur District.
Sirdar Sahib Kishen Singh, Chaudhri, of Bham.	2nd class, 16th March 1913.	Within Batala Tahsil.
Chaudhri Hashmat Ali ..	2nd class, 9th April 1913	Within Shakargarh Tahsil.
Chaudhri Kharak Singh, B.A. ..	Ditto	Within Pathankot Tahsil.
Lala Devi Dial ..	Ditto	Within Gurdaspur Tahsil.
Chaudhri Kesar Singh, Zaildar	3rd class, 26th April 1910	Gurdaspur District.
Mahant Basheshar Nath, Zaildar ..	Ditto	Ditto.
Mehr Amir Ulla ..	Ditto	Ditto.
Chaudhri Mehar Singh ..	3rd class, 9th April 1913	Hill circle of the Pathankot Tahsil and Thana Dunera.

Registration.

181. The Registration work of the district is heavy and is still increasing. As usual, the Deputy Commissioner is *ex-officio* Registrar, with a muharrir on Rs. 25 per mensem. Each Tahsildar is a Joint Sub-Registrar in his tahsil. There is one Sub-Registrar in each tahsil, the official at Pathankot being an Honorary Sub-Registrar. The officer in charge of the sub-division of Dalhousie exercises the powers of Joint Sub-Registrar at Dalhousie.

Section C.—Land Revenue.

Tenures.

182. The following account of tenures is extracted from the 1892 Gazetteer and is mostly taken from Mr. (now Sir Charles) Roe's report on the Shahpur-Kandi tract.

It is in many cases simply impossible to class a village satisfactorily under any one of the ordinarily recognised tenures, the primary division of rights between the main sub-divisions of the village following one form, while the interior distribution among the several proprietors of each of these sub-divisions follows another form, which itself often varies from one sub-division to another. Besides, it occasionally happens that the revenue is distributed by an all-round rate on actual possession, while the division of the land is still regulated by ancestral or customary shares. The following discussion of the origin and growth of the village tenures in the Shahpur Kandi tract is taken from Mr. Roe's report (1872) and is interesting as showing the course of development of these tenures in this part of the Punjab :—

" Out of the 140 villages of the Shahpur Kandi tract, 45 have been held in possession ever since their foundation, and this of itself implies that their existence has been a short one. Their number is less than one-third of all the villages, but their area is more than half the whole. Although many of the villages have been founded only a short time, yet in many cases this foundation was rather a restoration than an original creation. When the power of the Hill Chiefs fell before the Sikhs many Rajput village communities left their land and followed their former masters. Their fields lay waste for a short time, and were then taken possession of either

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Land Revenue.

Tenures.

by their former tenants or by colonists from the surrounding villages. Many of the old proprietors returned and claimed their lands at the regular settlement, but their claim was almost invariably dismissed as barred by the Law of Limitation. In some instances, however, the feeling of the people was so strongly in their favour that they were voluntarily re-admitted, not indeed to the whole, but to a portion of their old rights. This gathering together of a fresh community has been treated as the foundation of the village, and hence the number said to have been held on possession from the commencement. Another cause of so many villages being held in this way arises from the fact that many of them are, properly speaking, not villages at all, but merely a number of scattered hamlets, originally founded by independent squatters who broke up waste land, which have been grouped into villages for the purposes of revenue administration.

"On the whole the statement of tenures is but a confirmation of the general belief on the history of village communities. The ordinary practice is for a village to be founded by a single family, for it to be held for some time by the descendants jointly, or it then to be divided in ancestral shares, for the ancestral to pass into customary shares, for shares to be gradually lost sight of, and finally for possession to become the sole measure of right. Thus out of 140 villages, 45 have always been held on possession, leaving 95 in which shares either have been or are regarded as the measure of right. In 28 of these customary shares have been the rule from the beginning; in 10 of these the proprietors are of different castes; but in the remaining 18 they are all of one caste, and in the great majority of cases descended from a common ancestor. Such villages clearly give us only another form of foundation by a common ancestor. The village is founded by near relatives, but some are richer or stronger than the others, so a share is awarded to them in excess of their ancestral right. In nine villages shares have partially fallen into disuse and in eight they have entirely disappeared. This disappearance has often been caused by the action of our officers at the last settlement, when many villages which were then really held on shares were treated as held on possession. Application was often made for a restoration of shares, but it could not be granted without the consent of all the proprietors, and of course those who held more than their proper share were not so foolish as to give this consent.

Customary and ancestral shares.

"In the remaining 50 all existing rights have been derived by descent from a common ancestor: 20 of these villages are still held on a joint tenure and 22 have been divided on ancestral shares; in the remaining eight the ancestral has given way to a customary measure of right. The commonest cause of this change is that some branch of the family has become extinct, or fled from the village, and its share instead of being divided amongs all the remaining proprietors has been transferred bodily to the branch of the family best able to manage it. Thus we find that out of 95 villages 48 or more than half have undoubtedly been founded by a single family; of the remaining 47, 14 are shared by Rajputs and other castes, leaving 33 which have either directly developed from the ancestral type or are merely slight variations from it, so that we may fairly say that a proportion of 81 out of 95 villages give strong proof of the ancestral origin of proprietary rights. In the old *taluka* and present assessment circle of Kandi the tenure is entirely possession from the beginning, the reason being that, as already explained, these are rather revenue *mahals* than actual agricultural communities. At the foot of the hills round Pathankot, in the old Palahi and Pathankot *talukas*, the predominant form of tenure is that of

Locality of tenures.

customary shares from the beginning, but a large number of villages still retain their ancestral form. Across the Chakki in the old Mirthal and adjoining *talukas* the ancestral type in one form or another is almost universal; there is scarcely a village which has always been held on possession or even on customary shares."

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Land Revenue.

Locality of tenures.

The gradual progress from sole proprietorship to a communal tenure, and from that to a division by ancestral shares, then to customary shares and finally to individual proprietorship, where each man's holding is the sole measure of his right, is equally strongly marked in the rest of the district, and notwithstanding all efforts to induce the people to adhere, wherever possible, to the *pattidari* form of tenure, which to a great extent keeps the people out of the hands of the subordinate revenue staff, the number of *bhaiachara* estates as determined by the method of distribution adopted has risen from 392 to 962 at the recent settlement, though the former figure was probably understated.

Sermani or proprietary dues.

183. Rights of *talukdari* or superior ownership are not very frequent, and perhaps the most notable instance is the case of the Kadian Mughals and of the Talh Khatris of Kalanaur, who, as representatives of the old kanungos in Mughal times, still receive a small allowance of this character. At the 1892 settlement all such allowances were assessed as a cess on the revenue, except where special arrangements in the way of a plot of land revenue free already existed.

In the Shahpur Kandi tract a privilege was enjoyed by certain privileged persons or classes under the Sikhs, which was known as *sermani*. It is still realized in many villages, and has been recorded at settlement as a proprietary due. It is thus described by Mr. Roe :—

"In many villages I have found that the rights of all the resident cultivators were originally equal, with the exception that some paid and others received the *sermani* allowance. In paragraph 135 of his report Mr. Barnes says that this allowance was the perquisite of the *muqaddam* or headman, but the advantage which this office conferred, together with the tendency of native institutions to remain in one family, gradually converted a temporary perquisite into a permanent hereditary and transferable right. My own inquiries entirely bear out this view, and I have little doubt that the *sermani* was originally nothing more than our *lambardari* allowance, but not only did the headman abstain from collecting this from his own caste, he went further and divided amongst them what he collected from the cultivators of other castes. If there were any backwardness in paying the revenue, the Sikh official did not hesitate to transfer this right to another family or another caste. Where such transfers were frequent, the village at the regular settlement was often recorded as *bhaiachara*, all or nearly all the cultivators obtaining the status of proprietors. But where the *sermani* had been held for a long time by one family or caste, it was usually treated as a mark of proprietorship. The caste enjoying it were recorded as proprietors, and all the others as *maurusis*. Directly these magical words have been used, all the stereotyped description of their status, their rights to cut trees, sink wells, etc., are employed as a matter of course. The most glaring instances of this have occurred in the Hoshiarpur District, but the evil is found, though to a much less extent, in the Shahpur Kandi circle. The hardship that arises is manifest."

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Land Revenue.

General remarks on tenures.

184. The above account principally deals with the Shahpur Kandi tract; but the general course of the evolution of tenures has been practically the same all over the district. The present number of villages of the various types is given in the table following :—

Tahsil.	Zamindari.	Pattidari.	*Bhaiachara.*
Gurdaspur	25	407	267
Batala	11	205	279
Shakargarh	20	503	223
Pathankot	33	291	99
Total ..	89	1,406	868

Most of the villages were originally founded by single families and have already passed to the final stage of *bhaiachara* or are passing to it through the intermediate stages of *pattidari mukammal* and *ghair mukammal*. The sub-division of villages into *tarafs*, *pattis* and holdings is the natural result of the multiplication of the descendants of the original family. The causes that led to the replacement of ancestral by customary shares and the disappearance of all shares, both ancestral and customary, appear to have been as follows :—

The shares of the branches that died out were not usually divided by the surviving branches according to ancestral shares. Either the childless proprietors themselves gave their lands in their lifetime to some of their collaterals who managed to retain them after their deaths or the vacant lands were seized by powerful members of the village community to the exclusion of others. The same thing happened as regards the shares of absentees. Moreover, absentees who returned to their villages were not usually given their full shares. Daughters and their descendants were given land without any reference to shares. The original founders were sometimes ousted from a part only of the village or could regain only a part after being ousted from the whole. Sales of land were very rare in former times, but were not wholly unknown. Abandonments were much more frequent than at present. In some villages the whole of the *sham lat* land was divided and the shares were in course of time forgotten, as no circumstances arose which necessitated reference to them.

Some of the villages were founded by officials and *jagirdars* and consisted of groups of families of different tribes : these were of the *bhaiachara* type from the beginning. In some the original proprietors lost their rights and the tenants acquired the status of proprietors.

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Land Revenue.
General remarks on tenures.

In most of the di-alluvion villages of the ancestral type there existed a provision for the adjustment of inequalities caused by alluvion and diluvion. Every proprietor was given a share both in the *pukka* and the *kacha* land; the land that was carried away was recorded as *shamilat-i-deh* and the remaining *kacha* land was redistributed by a method known as *rassiwand*, from the employment of a rope to divide the land into the long narrow stripes. The redistribution was however in many cases successfully resisted, and in many of the villages therefore the existing *shamilat* was as far as possible divided and it was provided for the future that proprietary rights should remain unaffected by diluvion. Reversions to old type also sometimes occur. In the hill circle of the Pathankot Tahsil, where the population has a tendency to decrease, the dying out of some branches has caused the reversion of some villages from the *pattidari* to the *zamindari* type. Some of the di-alluvion villages were wholly carried away and were shown as *zamindari* in consequence of the rule that land carried away should be recorded as *shamilat-i-deh*.

The first regular settlements.

185. The territorial transfers mentioned in Part B, which occurred while the settlements were actually in progress, have made it difficult to trace the revenue history of the district. The summary settlement of the greater part of the area included in the district was effected by Captain Lake, and the regular settlement was undertaken by Mr. R. H. Davies in the Bari Doab, Mr. Temple in the trans-Ravi tract, and Mr. Barnes in the portion of the Pathankot Tahsil at first included in Kangra. Mr. Davies' printed report of 1854 refers to two different tracts. Mr. Temple and Mr. Prinsep, owing to causes explained in Mr. Dane's Shakargarh Assessment Report, wrote no report at all, and this had to be done in 1859 by Mr. Cust as Commissioner of Amritsar. Another result of the territorial transfers was that in the 87 estates transferred from Kangra, the *ghumao*, of 3,674 square yards based on the 51½-inch *kadam*, was used, while Mr. Davies worked with a *ghumao* of 4,000 square yards obtained by a 60-inch *kadam*, and Mr. Temple used the 66-inch *kadam*, giving a *ghumao* equal to an acre. The summary settlement figures, owing to the large number of jagir estates left unassessed, are not complete, and are not very important as the regular settlements were made so soon after annexation.

Mr. Barnes, as in Kangra, assessed by *taluqas* and not by assessment circles. Mr. Prinsep and Mr. Blyth, working under the orders of Mr. Temple and Mr. Davies, divided up their tracts into regular assessment circles, and worked very much on the same lines as those on which present assessments are conducted.

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Land Revenue.

The first regular settlements.

The Government share was, however, taken as ¼th of the total produce instead of half the landlord's share.

Mr. Barnes' assessment covered the present Hill and Kandi circles of the Pathankot Tahsil, except seven small villages. He raised the summary settlement revenue by 4 per cent., taking something off the hill estates and adding something on the Chakki villages. The assessment was sanctioned in 1855 for a term of 30 years from 1850. Elsewhere the summary settlement revenue was much reduced. The loss was actually heaviest in the Shakargarh Tahsil, where, though Mr. Temple had cut down the assessment considerably, it had to be still further reduced owing to widespread objections raised by the people, and the ultimate result was a decrease of 15 per cent.

In the Chak Andhar Mr. Temple practically retained the summary settlement *jamas*, but his assessment was cut down by 10 per cent. again, before being sanctioned for both tracts in August 1859 for a term of 10 years from *kharif* 1852.

Mr. Davies reduced very heavily in the rest of the Pathankot Tahsil, but much of this reduction was due to the levy of a separate rate on lands watered from the Hasli and Bari Doab systems, and to special allowances made for deterioration of some villages due to the cutting-off of their water-supply by the works necessary for the latter canal. The gross reduction in land revenue here amounted to 30 per cent. In the Gurdaspur and Batala Tahsils he also cut down the demand, and at the suggestion of Mr. Raikes, the Commissioner, again revised his proposals, with the result of a total reduction of 16 per cent. in the former and 14 per cent. in the latter. Something of this, especially in Gurdaspur, must be put down to the change in the system of levy of canal dues. This regular settlement was also sanctioned in August 1856 for a term of 10 years from *kharif* 1852.

The actual revenue of the present district, as assessed at the different regular settlements, was as follows. The figures for facility of comparison include the petty *mafis*, which were left unassessed in most cases, but have now been assessed for account purposes at the village rates :—

	Rs.
Gurdaspur	4,26,780
Batala	4,11,922
Shakargarh	3,28,929
Pathankot	2,44,407
Total ..	14,12,038

The second regular settlement.

186. In February 1862 the whole district, except the villages assessed by Mr. Barnes, was placed under revision of settlement under the personal supervision of Mr. E. A. Prinsep, Settle-

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Land Revenue.

The second regular settlement.

ment Commissioner, with Mr. J. B. Lyall, as an Assistant Settlement Officer in Gurdaspur and Pathankot, and Rai Gopal Das as Extra Assistant Settlement Officer in Batala and Shakargarh. After the famine year of 1860, moreover, Mr. R. E. Egerton, as Deputy Commissioner, had already inspected most of the principal Shakargarh estates, and noted up proposals for revision of assessment. It is, therefore, a somewhat curious coincidence that no less than three successive Lieutenant-Governors of the Punjab, Sir R. H. Davies, Sir R. E. Egerton and Sir J. B. Lyall, and a Governor of Bombay, Sir R. Temple, have all been directly associated with the settlement of the district.*

It does not appear that there was any special reason for undertaking the revision of settlement beyond that the period for which the regular settlement was to run had expired. The alterations in the boundaries of the Gurdaspur and Batala Tahsils, however, which occurred first at this time were very unfortunate and rendered it impossible to utilize the assessment returns prepared. Mr. Lyall's inspection notes in the village note-books were full and complete and still in most cases accurately represent the condition of the estates. In the other tahsils, and especially in Shakargarh, however, many villages were never apparently fully inspected, or no notes were written up, while in Batala and the portion of Gurdaspur under Rai Gopal Das, the notes by him and Mr. Prinsep are not satisfactory and were not apparently always based on an intimate acquaintance with the estate under assessment. No report was ever submitted on this revision of assessment for reasons contained in the Proceedings of the Punjab Government for 1872-73-74, quoted in paragraph 2 of letter No. 103 of 26th January 1885, from Senior Secretary to Financial Commissioner, to the Officiating Junior Secretary to Government. An acute controversy raged over the question whether the settlement should be sanctioned at all or whether it should only run for a term of 10 years, but eventually on 7th November 1873 it was sanctioned for a term of 20 years with effect from *kharif* 1865. The results of the re-assessment, with the ultimate loss to Government, are shown below :—

	Rs.
Gurdaspur	3,89,351 or 9 per cent.
Batala	3,78,641 or 8 per cent.
Shakargarh	3,13,445 or 5 per cent.
Pathankot	2,18,360 or 11 per cent.
Total ..	12,99,797 or 8 per cent.

*To this list has now been added the name of Sir L. W. Dane who carried out the 1885 to 1891 settlement, and was Lieutenant-Governor of the Punjab from 1908 to 1913.

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Land Revenue.

The second regular settlement.

The total revenue proposed has been given, including progressive assessments which amounted to only Rs. 748, Rs. 3,519, Rs. 786 and Rs. 1,422 in the different tahsils, respectively, or Rs. 6,525 in all, and, for facility of comparison in Pathankot, the 1872 revenue of the villages not assessed by Mr. Prinsep has also been added in. The Government demand was taken as half net assets which was calculated at one-sixth of the gross produce.

To quote the letter mentioned above from the Officiating Senior Secretary to the Financial Commissioner "the conclusion arrived at by the Government of India and by the Punjab Government was that the assessment as a whole was unduly low, and that in particular the rates on wells were inadequate in consequence of an unsatisfactory method of taxation based upon a particular economic theory." The main causes apparently assigned by Mr. Prinsep for his reductions in Gurdaspur and Batala were an over-estimate at the regular settlement of the irrigating capacity of the wells, coupled with a desire not to tax unduly the capital and industry involved in the construction of these works. In the canal villages some of the decrease was also due to an arrangement whereby he treated the land in its unirrigated aspect and cut off part of the former land revenue for transfer to the head of canal revenue. His actual deductions on this account were made in lump sums for each village as obtained by a varying rate per acre on the irrigated area. These transfers, however, were apparently never actually made, for as soon as the settlement was concluded the discussion commenced which eventuated in the imposition on the area irrigated in a given year of a canal water-advantage rate varying in the proportion to the distance of the tract from the head of the canal and the average rainfall, being highest at Re. 1-4-0 per acre in Pathankot and lowest in Gurdaspur and Batala at Re. 1-2-0 per acre.

In Shakargarh the decrease was partly due to the same causes in the case of wells and to other local reasons, such as a desire to assess the Bharrari and frontier villages lightly, and to reduce the assessment on the former *jagir* villages of Raja Teja Singh.

In Pathankot special reductions were again given for injury caused to the water-supply of some estates by the Bari Doab Canal Works, and the new canal arrangements proposed also tended to cut down the former revenue. Speaking generally, it may be stated that a full and even a high assessment was put on *barani* soils and lands irrigated by private canals, while the well lands were let off very easily.

The revised assessment worked smoothly and well generally; only in special cases were suspensions and remissions necessitated, and resort to coercive processes was rare.

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Land Revenue.

Revision of records in Pathankot.

187. In 1869, in connection with the measurements and revision of the record of rights in the Kangra District, the Pathankot villages, which had been settled by Mr. Barnes in what was styled the Shahpur-Kandi tract with Dalhousie, were placed under revision of records. Mr. Mackworth Young was first appointed to the charge of the settlement, and was succeeded in October 1870 by Mr. Roe, who completed the operations by February 1873, and submitted a final report, which was sanctioned by Government in October 1876. These operations did not extend to a revision of the assessment, but included a complete and very accurate survey.

The 3rd and 4th regular settlements—(1) Revision of records.

188. The 1891 settlement, the first to cover the present district as a whole, began in 1885 under Mr. (now Sir) R. M. Dane who owing to ill-health gave way to his brother Mr. (now Sir) L. W. Dane in 1887. The very numerous assessment circles were then reduced to a less unwieldy number, as shewn in the margin, and have not since been altered, except in one particular : as explained in paragraph 11 of the Batala Assessment Report of 1909, canal irrigation had been introduced into 73 villages of the Bangar Circle and these were amalgamated with the small Dhaia Bet Beas Circle, in which 13 of the 21 villages had also received canal irrigation : the new circle thus formed was re-named the "Eastern Nahri." The original Nahri Circle in the centre of the tahsil was then distinguished by the title "Western Nahri." The present circles in each tahsil are therefore as under :—

TAHSIL.	NUMBER OF CIRCLES.	
	Old.	New.
Gurdaspur	20	5
Batala	16	5
Shakargarh	7	4
Pathankot	9	6
Total ..	52	20

Batala.	Gurdaspur.	Shakargarh.	Pathankot.
Eastern Nahri.	Dhaia Bet Beas.	Bharrari.	Andhar.
Bangar.	Bangar.	Paintla.	Bet Ravi.
Western Nahri.	Nahri.	Bet Ravi.	Pathanti.
Maira Kiran.	Maira Kiran.	Darp.	Shah Nahri.
Bet Ravi.	Bet Ravi.		Kandi.
			Pahari.

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Land Revenue.

The 3rd and 4th regular settlements—(1) Revision of records.

The classification of soils had been effected at the 1891 settlement in accordance with the patwari rules except that, as the bulk of the land in the district is unirrigated, the *barani* class was divided into sub-classes to suit the varying conditions of the tract. With the modifications set out in paragraph 31 of the Settlement Report, which it is unnecessary to reproduce here, this classification was also followed in the 1912 settlement.

The systems of survey and preparation of records adopted at the 1891 and 1912 settlements are described at length in paragraphs 14—24 of the 1912 Settlement Report. At both settlements the existing village maps were, except in a few instances, merely corrected and brought up to date. In riverain villages on the Ravi and Beas a special form of survey was, with the assistance of the Survey Department, adopted (paragraph 16 of the 1912 Settlement Report) and the river boundaries with other districts and States were decided and demarcated : the resulting measurements of the riverain should prove much more satisfactory than the measurements of these areas have been in the past.

Tract.	Length of *karams*, in inches.	Number of *kanals* in an acre.
Tahsils Batala, Gurdaspur and Pathankot, except Chaks Andhar and Pahari.	60	9·68
Tahsil Shakargarh and Chak Andhar of Pathankot.	66	8
Chak Pahari of Pathankot.	57·5	10·54

Different units of measurements, as shewn in the margin, prevail in different parts of the district. Except in the Pahari Circle of Pathankot, where most of the maps were on the scale of 30 or 50 *karams* to an inch, the village maps were all on the scale of 40 *karams* to an inch, and this has been maintained in the late settlement.

(2) Revision of assessment in 1885—91.

189. The following account of the 1891 revision of assessment is taken from pages 165-66 of the last Gazetteer :—

The usual assessment reports were submitted, which contain full details of the revenue rates adopted and the reasons for their adoption, and the results have been summarized in the final report. The chief change of system introduced was a return to acreage *chahi* rates in lieu of Mr. Prinsep's lump *abiana* or water-rate on wells, which of course shifted a good deal of the burden from the *barani* soils on to the well-lands, as far as the Government assessment was concerned, though in the *bachh* the people still showed a tendency to let the wells off easily and in some cases distributed by the former *abiana* system.

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The 3rd and 4th regular settlements—(2) Revision of assessment in 1885–91.

The Government share of the produce was arithmetically worked out at 21½ per cent. of the gross produce, but in the produce estimates, to counteract a possible over-estimate of the outturn per acre, the fodder crops and the share of the straw taken by the owners were not included in the calculation of the value of this share. The following table summarises the main guides for re-assessment and the revenue rates adopted for each tahsil:—

Tahsil.	Half assets produce estimate.	Half cash rent.	Actual incidence of revenue rates adopted.
	Rs. A P.	Rs. A. P.	Rs. A. P.
Gurdaspur ..	3 11 0	1 15 2	1 14 7
Batala ..	4 6 0	2 4 5	2 0 7
Shakargarh ..	2 13 1	2 2 11	1 9 9
Pathankot ..	2 10 7	2 3 0	1 12 10

It will be seen that where the cash rents were sufficiently numerous to furnish adequate data, as in Batala and Gurdaspur, the assessment was well within the figure indicated by this guide, while in all cases it was kept intentionally far below the results obtained from the produce estimates. This was done in consequence of the special instructions of Government directing the imposition of a liberally light assessment, and because in a district like this, where most of the land is held by peasant proprietors and small holdings are the rule, it is practically impossible to take anything like a full half assets share, if any margin of subsistence is to be left to the people at all.

The actual results of the re-assessment are shown below, from which it will be seen that the tendency has been to let off the upper portion of the tract easily and take more from the southern part of the district, which is in the hands of the better classes of agriculturists and which has made more progress in prosperity under British rule since the development of the tract by well-sinking, canal extension and construction of roads and railways, and which also has not to contend with the same

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Land Revenue.

The 3rd and 4th regular settlements—(2) Revision of assessment in 1885—91.

adverse climatic conditions as the hill and submontane zones as a whole :—

TAHSIL.	REVENUE OF LAST YEAR OF EXPIRING ASSESSMENT AS GIVEN IN COMPARATIVE DEMAND STATEMENT.			1891-92.			Increase.	Percentage.
	Assigned.	Khalsa.	Total.	Assigned.	Khalsa.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Gurdaspur ..	42,980	3,38,955	3,81,935	48,067	3,98,053	4,46,120	64,185	16
	*362	5,340	5,702	252	4,709	4,961	—741	..
Batala ..	45,090	3,35,725	3,80,815	55,637	4,21,423	4,77,060	96,245	25
Shakargarh ..	26,377	2,84,271	3,10,648	19,928	3,59,292	3,79,220	68,572	23
Pathankot ..	14,983	1,95,144	2,10,127	18 155	2,19,008	2,37,163	27,036	13
Total ..	1,29,430	11,54,095	12,83,525	1,41,787	13,97,776	15,39,563	2,56,038	20
	*362	5,340	5,702	252	4,709	4,961	—741	..
Total ..	1,29,792	11,59,435	12,89,227	1,42,039	14,02,485	15,44,524	2,55,297	..

* Fluctuating revenue.

The actual rate of incidence per acre of cultivation, with the rates at the Regular and Revised Settlements, is shown below :—

Tahsil.	Regular.	Revised.	Present.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Gurdaspur ..	1 12 2	1 11 0	1 14 7
Batala ..	1 14 7	1 11 11	2 0 7
Shakargarh ..	1 8 0	1 5 9	1 9 9
Pathankot ..	1 14 1	1 9 1	1 12 10
District ..	..	1 9 5	1 13 7

The settlement was sanctioned for a period of 20 years with effect from *kharif*, 1889, in Batala, *kharif*, 1890, in Gurdaspur, *rabi*, 1891, in Shakargarh and *kharif*, 1891, in Pathankot.

Revision of assessment, 1907—12.

190. The recent settlement began in 1907 under Mr. J. M. Dunnett who acted for four months until Mr. F. W. Kennaway took over charge. The latter officer remained as Settlement Officer for the remainder of the settlement operations (which were completed in 1912) with the exception of six months in 1910 when he took leave and Mr. H. W. Emerson acted. The revision of maps and records has already been mentioned. The revision of assessment followed the usual lines and an account

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Land Revenue.
Revision of assessment, 1907—12.

of it will be found in the Settlement Report, 1912. The results of re-assessment are shewn in the following table by tahsils:—

TAHSIL.	REVENUE (IN RUPEES).					REMARKS.
	Previous year's demand.	New demand.	Increase, per cent.	Rate of incidence (per acre).		
				Cultivated.	Cropped.	
				Rs. A. P.	Rs. A. P.	
Batala ..	4,77,612	6,13,785	29	2 8 9	2 5 8	
Gurdaspur* ..	4,46,414	5,56,138	23	2 6 0	2 2 10	*The Dhaia Bet Beas Circle of this tahsil includes 37 villages under fluctuating assessment. The average demand, Rs. 6,591, has been entered and taken into account in working out the incidence.
Shakargarh ..	3,66,352	4,28,432	17	1 14 10	1 15 7	
Pathankot ..	†2,36,568	†2,55,778	8	2 0 3	1 12 8	†Excludes Rs. 1,184, old demand, and Rs. 1,213, new demand, of Dalhousie.
Total of the district ..	†15,26,946	†18,54,133	21	2 4 0	2 1 10	

The settlement was sanctioned for a period of 30 years with effect from *kharif*, 1910, in Gurdaspur and Batala, *kharif*, 1911, in Shakargarh and *kharif*, 1912, in Pathankot. There is no doubt that the assessment is still liberally lenient. Jats are recruited for the army in considerable numbers from the Gurdaspur and Batala Tahsils and Rajputs to a less extent from Shakargarh Tahsil: political considerations must always carry weight in the district, and in a tract of small holdings it is impossible to take a full half net assets from the revenue-payers. The average acreage per share is 8 in Pathankot, 7 in Gurdaspur and 6 each in Batala and Shakargarh. The rates per acre imposed on different classes of soil vary from a maximum of Rs. 5 per acre on *chahi* in the Bet Ravi circle of Gurdaspur and the Bet Ravi and Paintala circles of Shakargarh to 8 annas per acre on the lowest class of *barani* in the hill circle. The average incidence per acre cultivated varies from Rs. 2-14-8 in the Western Nahri circle of Batala to Re. 1-3-7 in the Pahari circle of Pathankot, and per acre cropped from Rs. 2-9-3 in the Maira Kiran and Bet Ravi circles of Batala to Re. 1-6-4 in the Hill circle of Pathankot. Details will be found in paragraphs 44—47 of the Settlement Report and in the Assessment Reports for each tahsil.

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Land Revenue.

Collections, remissions and suspensions.

191. Ordinarily no difficulty is experienced in collections and the amount suspended and remitted is insignificant, as will be seen from the table in the margin which exhibits in percentages on the total revenue the amount suspended and remitted in the 20 years succeeding the settlement of 1891. The comparative weakness of the Shakargarh and Pathankot Tahsils is well illustrated by these figures, but it is to be remembered that these tahsils contain, respectively, the Bharrari and Hill circles, to the circumstances of which attention has already been sufficiently directed.

Tahsil.	Suspended.	Remitted.
Gurdaspur ..	2·3	·16
Batala ..	·7	·06
Shakargarh ..	6	2·2
Pathankot ..	3·4	·7
District ..	3	·8

Land revenue assignments.

192. The following are the principal assignments of land revenue held in the district:—The Darbar Sahib of Amritsar holds an assignment worth Rs. 5,561 in Rasulpur and Talwandi Bharath in Batala, Nanowal Khurd and Nanowal Kalan in Gurdaspur, and, with the Akal Bunga, Narainpur in Pathankot. Bhai Fateh Singh, the Head Garanthi of the Darbar Sahib of Amritsar, enjoys a jagir of Rs. 660 in Bharoia in Gurdaspur and in Bhoia in Shakargarh. The Dera Nanak Darbar Sahib has a grant of Rs. 2,110 in Killa Nathu Singh and Kamalpur in Gurdaspur. The Akhara of Giyan Das in Amritsar derives Rs. 1,418 from the villages of Piro Shah and Bhoman in Batala. The Tahli Sahib shrine in Dera Nanak holds Rs. 1,329 in Chichriali in Batala. Mahant Arjan Das, Udasi, of Nainakot, receives Rs. 1,017 from Ghanwal, Sogian and 18 other villages. Dhesian in Batala and Jhandpur and Lahri Gujran in Pathankot, worth Rs. 1,533, are held by the Granthis of Trilok Nath in Kangra, a foundation of Sardar Lehna Singh Majithia.

The Pindori shrine receives Rs. 3,271 in Jethowal, Bhagwanpur, Dakhla, Maharajpur, Thakarwal and Keso Kalal in Gurdaspur and half of Lahri Mahantan in Pathankot, together with

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17 mafi plots. The succession to the Mahantship of this shrine has been contested in the District Judge's court for the last four years. The Dhianpur shrine has an assignment of land revenue, now worth Rs. 1,617, of its own estates in Dhianpur and Sangtuwal in Batala. Mahant Hari Das of Dhamtal in Kangra receives from this district Rs. 1,007 in Maira Mahantan and other villages. The Jogi Mahant of Jhakbar in Pathankot holds his own village, worth Rs. 544, in jagir. The Gurdaspur Mahant has a grant of Rs. 1,666 in Gurdaspur, Halla and Aujla.

The only notable Muhammadan grants are one of Rs. 1,009 to the shrine of Badr-ud-din, Bagdadi, in Masanian in Batala with two plots in Gurdaspur, one of Rs. 1,636 in Hasanpur Kalan, with six plots in other villages to the Bukhari Sayads of Batala as custodians of the tombs of Mauj Darya and Shahab-ud-din Nahra, and one of Rs. 891 to Mian Abdul Karim, head of the Kot Mian Sahib shrine in Gurdaspur. Kishen Singh, Sodhi, of Anandpur, in Hoshiarpur District, enjoys a *jagir* of Rs. 3,728 in Jhabkara, which has been consolidated.

Thakar Har Kishen Singh, grandson of Raja Sir Sahib Dial of Kishenkot, receives Rs. 9,336 a year from 10 villages near Srigobindpur. Sirdars Harnam Singh and Indar Singh of Mukerian hold Rs. 2,429 in Kot Todar Mal and Bagol. Sirdar Gopal Singh of Bhagowala holds a fixed grant of Rs. 1,482 in six villages for life and Rs. 558 in Dalam and Bhagwala in Batala in perpetuity. Sirdar Arur Singh of Naushera Nangli in Amritsar District holds Rs. 1,539 in Man Nangal, Bhaironpur, Sharaf Chak, Raya Chak, Rattangarh, Sherpur, Gidarpur, Salowal and Malkana in Pathankot and Mathanwala in Gurdaspur. Raja Sant Singh of Akhrota holds an assignment of Rs. 760 in that village and Sirdars Arur Singh, Harbaksh Singh and others of the Veglia family receive Rs. 464 from Kotli Mughlan, Khuba, Targarh, Gobindsar and Gahotran Lahri in Pathankot. Sirdar Harnam Singh, Bagga, holds a *jagir* of Rs. 844 in Burj Araian. Sirdars Bishen Singh and Sundar Singh, Ramgarhias of Amritsar, enjoy fixed *jagirs* of Rs. 2,364 in Rangar Nangal and Rupowali in Batala. Sirdar Shibdev Singh of Sangatpur in Amritsar District has a *jagir* of Rs. 1,625 in Jaura Singhan in Batala and Pindori Maia Singh in Gurdaspur.

Two new grants have recently been sanctioned,—one of Rs. 371, the revenue of Mauza Kohlian in Tahsil Shakargarh, for the upkeep of the famous Sikh shrine at Kartarpur in Doda, and the other of Rs. 150 in Gakkhar Kotli for the Tahli Sahib shrine of that place.

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Miscellaneous Revenue.

Section D.—Miscellaneous Revenue.

Excise administration.

193. The excise revenue of the district is considerable, amounting to more than three lakhs of rupees. Over two lakhs of this comes from the still-head duty levied on the liquor issued from the Sujanpur Distillery which has been noticed in Section E of Chapter II. The next largest head of receipts is that of license fees for the sale of country spirit : wholesale and retail licenses brought in Rs. 66,861 in the year 1913. Opium license fees and profit from the sale of excise opium amounted to Rs. 23,330 in the same year. The duty on malt liquor was Rs. 4,505, on *bhang* Rs. 1,524 and license-fees for the sale of hemp drugs Rs. 7,672.

Country liquor.

194. There were 41 shops for the retail vend of country liquor during the year 1912-13 and 19,863 gallons were sold. The principal consumers are Sikh Jats. The Hindu tribes, especially Rajputs, are also spirit-consumers to some extent. The Muhammadans, with very few exceptions, are total abstainers. The supply of country liquor is principally derived from the Sujanpur Distillery, situated within the district, and the Amritsar Distillery. Formerly there was a larger demand for the Amritsar liquor, which was considered to be of superior quality ; but the Sujanpur Distillery has recently improved its plant and the quality of its liquor and the outturn has also considerably increased. The Sujanpur liquor will probably in course of time supplant the Amritsar liquor in the whole of the district, except in parts adjoining the Amritsar District. The total outturn of the Sujanpur Distillery was 54,345 gallons in 1912-13 ; but much of the liquor manufactured at the distillery is sold in the districts of Amritsar, Hoshiarpur, Jullundur, Ambala, Ferozepore and Ludhiana and in the Patiala State. With the large Sikh population illicit distillation is very rife, and it is hardly too much to say that almost every Jat Sikh village in the district has one or more private stills. The Jat Sikh draws a decided distinction between distillation of liquor for private use and distillation for sale, the former being scarcely considered an offence at all. Illicit stills are especially active just before the Lohri festival in January, when liquor is freely indulged in : sugarcane-pressing is then at its height and with *kikar*-bark always at hand, the materials for the manufacture of liquor are everywhere available. The offer of liberal money rewards and *Sanads* has little effect on illicit distillation, the figures for punishments for this offence being extremely small as compared with the amount of illicit

distillation. In 1913, 71 persons were arrested, 48 convictions obtained and Rs. 1,000 worth of fines imposed. It is hoped, however, that the increase that has been recently made in the excise staff and the new Excise Act, which provides severe punishments for excise offences, will have the effect of considerably reducing it.

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Miscellaneous Revenue.

Country liquor.

Foreign liquor.

195. Excluding the Railway Refreshment Room and Dâk Bungalow licenses there were only four shops for the sale of foreign liquor and beer during the year 1912-13. The demand for such liquor exists only in the towns of Batala, Gurdaspur and Pathankot and the summer station of Dalhousie. 1,464 gallons of foreign liquor and 660 of English beer were sold. There exists a brewery at Dalhousie of which the issue during the year 1912-13 amounted to 27,848 gallons. Much of the beer is sold to regiments stationed at Dalhouise.

Opium.

196. There were 36 shops for the retail sale of opium and poppy heads during the year 1912-13, and 1,570 seers of opium and 2,597 seers of poppy-heads were sold: much of the opium consumed, *viz.*, 1,318 seers, was excise opium and the rest was obtained from the Kulu Sub-division of the Kangra District and the Hill States of Mandi and Simla. Poppy-heads are imported from the Hoshiarpur and Jullundur Districts. Opium-eaters are to be found in all classes, but more among Sikh Jats than among others: generally old men indulge in opium-eating which is believed to have the effect of sustaining the system in old age and chronic disease. Poppy-heads are generally consumed by Muhammadan *fakirs* and *mirasis*. A good deal of opium is smuggled from the Bhadrawar territory of Kashmir and the Chamba State; and owing to the fact that opium is brought concealed in tins of *ghi*, sacks of grain, &c., it is very difficult to check this smuggling.

Hemp drugs.

197. 771 seers of *bhang*, 1,195 seers of *charas* and 4 seers of other hemp drugs were sold during the year 1912-13 under 19 retail licenses. *Bhang* grows wild all over the district. *Charas* is brought here chiefly from the Hoshiarpur warehouse. The principal consumers of hemp drugs are Hindu *sadhus*, Muhammadan *fakirs*, *mirasis*, *ekkawalas* and confectioners.

Incidence.

198. The incidence of persons served by each retail shop under each of the three main heads is as follows :—

Liquor	20,409
Opium	23,244
Drugs	44,040

CHAP. III-E.

Local and Municipal Government.

Staff.

199. The general Excise staff consists of one Inspector, two Sub-Inspectors and four peons. The Sujanpur Distillery staff consists of one Inspector, one Sub-Inspector and four peons with one Jemadar. The Dalhousie Brewery is in charge of a separate Sub-Inspector, who is supposed to check smuggling from Chamba in addition to his duties at the Brewery. The police are also expected to assist in preventive measures.

Stamps.

200. The income from the sale of judicial stamps has varied from Rs. 1,05,076 to Rs. 1,32,264 and that from the sale of non-judicial stamps from Rs. 50,356 to Rs. 61,666 during the ten years 1900-01 to 1910-11, for which figures have been given in Table 44. The urban population is comparatively small in this district and in rural population there is more litigation and a larger amount of property changes hands in good years than in bad. In 1900-01 there was an unusually large number of transfers of property owing to the anticipation of the passing of the Land Alienation Act, and the income from the sale of non-judicial stamps in that year has been never reached in subsequent years. The necessity of borrowing from money-lenders has been to a considerable extent obviated by the Co-operative Credit Societies of which the district now possesses a large number and this has affected both the number of suits for the recovery of debt and the sale of judicial and non-judicial stamps. The sale of the former should also be to a considerable extent reduced by the Redemption of Mortagages Act.

Income tax.

201. Details of income tax are given in Tables 42, 43 and 44. Most of the assessees are grain-dealers and money-lenders. The only important companies are the Dhariwal Woollen Mills and the Sujanpur Sugar Factory. Very few hereditary owners of lands have any assessable income.

Other heads of miscellaneous revenue.

202. An idea of the comparative unimportance of the income under other heads of miscellaneous revenue may be formed from the following items which relate to the year 1911-12 :—

	Rs.
1. Rent of fisheries	404
2. Revenue fines and forfeitures	2,443
3. Sales of trees and grass	160
4. *Talbana*	924
5. Copying and record office fees	833

Section E.—Local and Municipal Government.

The District Board.

203. The District Board is constituted under Act XX of 1883, and consists of 28 members, of whom 19 are elected and 9 appointed. Of these 9 appointed members 1 is nominated by Government, while the other 8 sit *ex officio, viz.*, the Deputy

Commissioner (as Chairman), the Civil Surgeon, the Superintendent of Police, the District Inspector of Schools, and the 4 Tahsildars of the four tahsils in the district. The Vice-Chairman is a non-official elected by the members of the board. There are no local boards, and the Finance sub-committee is the only sub-committee. The ferries, *serais*, cattle-pounds and certain *nazul* properties in the district have been made over by Government to the District Board. Arboricultural operations have recently been put under a duly qualified Forest Ranger from the Dehra Dun Forest School.

CHAP. III-E.

Local and Municipal Government.

The District Board.

The income of the District Board in 1912-13 (the latest period for which accounts have been made up) amounted to Rs. 3,02,839, of which about one-half was derived from the local rate (at Rs. 4-2-8 per cent. on the annual value or Rs. 8-5-4 on the land revenue), the other important items of receipts being—

	Rs.
Fines on stray cattle	6,554
Education (including a Government grant of Rs. 31,738)	64,072
Medical	5,764
Gardens and fairs	6,636
Civil works (ferries, rents of lands and buildings, staging bungalow fees, *serais* and roadside trees)	62,602

The incidence of taxation per head of population was two annas and nine pies.

The expenditure during the same year amounted to Rs. 2,97,588, of which the details are as follows :—

	Rs.
Refunds	2
Administration	10,010
Police	5,220
Education	89,862
Medical	29,897
Scientific	15,826
Superannuation (provident fund)	4,394
Stationery and printing	1,151
Local canal charges	1,961
Civil works	1,10,184
Deposits	5,335
Miscellaneous	23,746

Municipalities.

204. There are now 6 municipalities and 2 notified area committees in this district, *viz.*, Dalhousie, Gurdaspur, Batala, Dinanagar, Pathankot and Dera Nanak municipal committees and Srigobindpur and Sujanpur notified areas. The last two towns were formerly municipalities, but were reduced to the status of notified areas under Punjab Government notifications Nos. 242 and 340, dated 23rd April 1910 and 21st April 1909, respectively.

CHAP. III-E.

Local and Municipal Government.

Municipalities.

The notified areas of Behrampur, Dorangla, Kalanaur, Qadian and Fatehgarh were abolished under Punjab Government notification No. 631, dated 18th November 1912.

The following table shows the income and expenditure of the municipalities for the last three years :—

Name of municipality.	Net income.			Net expenditure.		
	1910-11.	1911-12.	1912-13.	1910-11.	1911-12.	1912-13
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gurdaspur ..	9,799	10,889	23,733	9,151	8,828	30,230
Batala ..	60,945	59,346	69,262	59,589	63,711	58,824
Dinanagar ..	9,187	9,661	10,465	8,678	8,356	10,848
Pathankot ..	16,785	18,766	14,850	15,222	19,639	17,980
Dera Nanak ..	8,696	9,028	10,846	9,046	10,414	8,735
Dalhousie ..	22,901	23,117	24,317	20,614	19,891	21,634

The following table shows the incidence of taxation in each of the municipal committees in the district for the last three years :—

Name of municipality.	Incidence of taxation on net collections of grain, sugar, *ghi* and other articles used for food and drink of men and animals.			Incidence of taxation on net collections of total octroi.			Remarks.
	1910-11.	1911-12.	1912-13.	1910-11.	1911-12.	1912-13.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Dalhousie ..	..	..	..	..	..	..	No octroi is levied in this municipality.
Gurdaspur ..	0 11 0	0 13 2	0 13 3	1 4 2	1 8 3	1 12 11	
Dinanagar ..	0 14 3	1 2 3	1 6 5	1 7 11	1 14 11	2 4 8	
Pathankot ..	1 3 9	1 1 5	0 15 11	2 1 7	1 14 11	1 10 6	
Batala ..	0 10 11	0 12 0	0 11 10	1 4 10	1 5 8	1 5 7	
Dera Nanak	0 10 3	0 13 5	0 13 8	1 5 6	1 9 11	1 12 2	

The following table shows the number of elected and nominated members of each of the municipal committees in the district :—

NAME OF MUNICIPALITY.	NUMBER OF MEMBERS OF COMMITTEE.					
	Ex officio	Nominated.	Elected.	Total.	Officials.	Non-officials.
Dalhousie ..	4	8	..	12	6	6
Gurdaspur ..	2	1	6	9	3	6
Dinanagar ..	2	5	..	7	3	4
Pathankot ..	2	1	6	9	3	6
Batala ..	2	3	11	16	3	13
Dera Nanak ..	1	2	6	9	1	8

Dalhousie is a first class municipality and the others are all second class. In all the municipalities in the district, except Dinanagar and Dalhousie, the election system is in force.

The election system in the Dinanagar municipality was abolished in 1908, as the methods adopted by candidates for securing election and the misuse made by them of their position when elected were scandalous and the cause of much discord.

In Dalhousie the members are appointed and the committee consists of 12 members as follows :—

The Deputy Commissioner of the Gurdaspur District.

The Assistant Commissioner of Dalhousie.

The Civil Surgeon of Dalhousie.

The Station Staff Officer.

Six members to be appointed by name as under, to hold office for three years—

Three house proprietors or agents of house proprietors.

One member representing the Hindu community.

One member representing the Muhammadan community.

One member representing the trades in the station ward.

Two members to be appointed to represent the interests of visitors and to hold office for one year only.

CHAP. III-F.

Public Works.

Municipalities.

The Sanitary Engineer to Government, Punjab, has approved of a scheme prepared by the Executive Engineer, Provincial Division, Jullundur, estimated to cost Rs. 15,903 for improving the water-supply at Dalhousie, and it is under consideration. There is also a proposal to introduce electric light into Dalhousie and Balun, and the Electrical Engineer to Government, Punjab, has been asked to report on it.

The detailed plans and estimates for a much-needed Drainage Scheme in Gurdaspur town were approved by Government, and the work, estimated to cost Rs. 18,624, is in progress. Rupees 10,624 were sanctioned by Government as a grant-in-aid for this project and Rs. 8,000 were paid by the Gurdaspur municipality.

A combined project for the Drainage (Ghartholi and Khandak Nala) scheme in Pathankot town was prepared by the Sanitary Engineer to Government, Punjab, and a grant-in-aid of Rs. 10,000 has been sanctioned by Government. The work will be taken in hand shortly. Part of a comprehensive drainage scheme for Batala, estimated to cost Rs. 7,325, has also been sanctioned by Government and a grant-in-aid of Rs. 6,000 has been allotted. The work has been completed. A Drainage Scheme at Dinanagar is under consideration and the project has been surveyed.

Section F.—Public Works.

The Public Works Department.

205. The district was formerly in the Jullundur Provincial Division, either as a separate sub-division or as part of that of Amritsar. In 1912 it was transferred to the Lahore Provincial Division, of which it is now a sub-division under an Assistant Engineer at Rs. 425 per mensem: the staff under him consists of—

- 1 clerk on Rs. 40.
- 3 Sub-Overseers on Rs. 55, 45 and 35, respectively.
- 5 road inspectors and mistris on pay varying from Rs. 45 to Rs. 30.

No District Board works have been made over to the Department for maintenance: on the contrary, all roads leading to tahsils and all Government buildings situated on those lines of communication are being gradually handed over to the District Board, an annual grant for maintenance being made. The roads within the municipal limits of Gurdaspur, Batala and Pathankot are all under their respective municipal committees.

CHAP. III-H.

Police and Jails.

The Public Works Department.

No roads or bridges in the district require special mention. The historical buildings of Akbar's Coronation Dais at Kalanaur and of Shamsher Khan's tomb at Batala are in charge of the Department, allotments of Rs. 34 and Rs. 128, respectively, being made for their maintenance.

Section G. - Army.

Dalhousie and Balun.

206. Dalhousie and Bakloh are military stations in the Jullundur Brigade and the Lahore Division. At the former the summer strength is about 1,200 non-commissioned officers and men, of whom about 1,000 belong to the three detachments from British Infantry Battalions and the remainder are Royal Artillery details and invalids. The cold weather strength is about 80 details, mostly invalids.

Bakloh.

207. At Bakloh there are two battalions of the 4th Gurkha Rifles who are stationed there all the year round.

There is no volunteer corps, but several of the Europeans in the district, mostly employés at the Dhariwal Mills, belong to the 1st Punjab Volunteer Rifles.

Section H —Police and Jails.

The Police force.

208. The Police force is controlled by a Superintendent and an Assistant. The total cost of the force in 1911 was Rs. 97,117. In addition 1,950 watchmen are entertained and paid by a house tax levied upon the village communities for the purpose, at a total cost of Rs. 52,880 a year. The beats of these watchmen have recently been revised, and the number reduced to lighten the charge on the people. Their pay has been fixed in cash to secure greater efficiency. The district lies within the Central Police Range under the control of the Deputy Inspector-General at Lahore.

The sanctioned strength of the District Police under the control of Superintendent of Police and his Assistant is as folows :—

Inspectors	..	5	(European Reserve Inspector, Court Inspector and 3 Circle Inspectors).
Sub-Inspectors	..	27	
Head Constables	..	74	
Constables	..	537	
Total	..	643	

Of this number 257 of all ranks are stationed at head-quarters including the Sadr Police Station (13) and Reserve (28).

CHAP. III-H.

Police and Jails.

Administrative arrangements.

209. For the purposes of administration the district is divided into three Police Circles, each under the supervision of an Inspector and containing six Police Stations of which a Sub-Inspector of Police is in charge as Station House Officer with a staff of two Head Constables and 10 Constables.

The following table shows the jurisdictions of the Circle Inspectors with their subordinate Police Stations :—

1. Gurdaspur	Gurdaspur.
	Rania.
	Kalanaur.
	Kot Naina.
	Shah arib.
	Chamal.
2. Pathankot	Pathankot.
	Dinanagar.
	Narot.
	Shahpur.
	Dunera.
	Dalhousie.
3. Batala	Batala City.
	Batala Sadr.
	Fatehgarh.
	Kahnuwan.
	Dera Nanak.
	Srigobindpur.

The distribution of the 18 Police Stations comprised in the three circles among the four tahsils is as follows :—

1. Gurdaspur Tahsil	Gurdaspur.
	Kalanaur.
	Rania.
	Kahnuwan.
	Dinanagar.
2. Pathankot Tahsil	Pathankot.
	Dalhousie.
	Dunera.
	Narot.
	Shahpur.
3. Shakargarh Tahsil	Kot Naina.
	Chamal.
	Shahgarib.
4. Batala Tahsil	Batala City.
	Batala Sadr.
	Dera Nanak.
	Fatehgarh.
	Srigobindpur.

The Shakargarh Tahsil has the distinction of possessing no Police Station at its head-quarters. A recommendation for the establishment of a Police Station at Shakargarh was made by Sir L. Dane (the late Lieutenant-Governor of the Province) when Settlement Officer of the district in 1890 and has recently been revived.

CHAP. III-H.

Police and Jails.

Out-posts.

210. In addition to 18 Police Stations there is one out-post, consisting of one Head Constable and four Constables, at Ghatasni, near Bakloh Cantonment, the head-quarters of the 4th Gurkha Rifles, and a road-post of three Constables at Dhar for the protection of the road leading from Pathankot to Dalhousie.

Prevention and detection of crime.

211. Inspectors and Sub-Inspectors of Police constitute the agency for the prevention and detection of crime within their respective jurisdictions. Each Station House Officer is assisted by a staff of two Head Constables and ten Constables, and is subject to the supervision of the Circle Inspector under the general control of the Superintendent of Police. The Station House Officer is required to investigate all cognizable offences and to check the work of his subordinates in cases in which he has been unable to make personal enquiry. Circle Inspectors supervise the general working of Police Station within their jurisdictions, guiding the enquiries of the Station House Officers and making immediate personal enquiries into crime of a more important nature prior to investigation by the Superintendent of Police.

Station House Officers are assisted in the prosecution and detection of crime by *zaildars* and village *chaukidars* and a system of *nakabandi*, supported by private subscription and a grant-in-aid (Rs. 1,500) by the Government, has recently been introduced for the purpose of obtaining through *zaildars* and *zamindars* intelligence of the movements of foreign criminals who, it has been found, visit the district for the purpose of committing crime in conjunction with local bad characters.

Recruiting.

212. The recruiting of the district is principally local and the proportion of Muhammadans to Hindus is 410 to 215. The preponderance of Muhammadans is due to the pay of the lower ranks being insufficient to attract Hindu agriculturists. 30·5 per cent. of the force is educated up to the elementary standards. Recruits are required to pass a medical test as to physical fitness and are put through a course of drill with arms before enrolment. A school of instructions in Elementary Law and Procedure is maintained at head-quarters for the training of constables who are called in periodically from rural stations, and selected men suitable for promotion to the rank of Head Constable are sent to the Provincial Police Training School at Phillaur for further instruction.

Railway Police.

213. The Railway Police District consists of all lands within Railway limits between Jaintipur and Pathankot Railway Stations

CHAP. III-H.

Police and Jails.

Railway Police.

on the North-Western Railway. The strength of the Railway Police is as follows :—

Gurdaspur Railway Station—
1 Sub-Inspector.
1 Constable.
Pathankot Railway Station—
2 Constables.
Batala Railway Station—
2 Constables.

The duty of the Railway Police is to enquire into all crimes committed within their jurisdiction ; the district police co-operate when required. They maintain law and order on the above-mentioned stations, render assistance to the travelling public, and keep a watch for suspicious characters using the Railway. A district police constable is posted to each station at which Railway Police are not provided.

Statistics of crime.

214. Crime for the most part is not of a serious nature. Heinous offences such as dakaiti have generally been found to be the work of criminal gangs belonging to neighbouring districts acting in collusion with local criminals. The most common forms of crime are burglary, theft and hurt. A table of statistics of cognizable crime for the five years 1907—1911 is given below :—

NATURE OF OFFENCES.	NUMBER OF CASES INQUIRED INTO					NUMBER OF PERSONS CONVICTED.				
	1907.	1908.	1909.	1910.	1911.	1907.	1908.	1909.	1910.	1911.
Rioting or unlawful assembly.	20	16	7	14	27	79	83	44	34	61
Murder and attempts to murder.	18	9	11	10	12	20	17	1	2	5
Total serious offences against persons.	86	83	124	114	143	68	75	52	28	46
Abduction of married women.	6	11	6	11	12	5	1	..	2	9
Total serious offences against porperty.	652	513	421	444	667	89	60	36	76	72
Total minor offences against persons.	16	19	12	14	12	13	26	7	6	6
Cattle theft ..	39	41	34	23	43	25	25	20	16	26
Total minor offences against property.	265	201	208	138	257	147	122	98	63	98
Total cognizable offences.	1,102	893	823	768	1,173	446	409	258	227	323

CHAP. III-H.

Police and Jails.

Finger-prints.

215. The finger-print system plays a successful part in the prevention and detection of crime. All accused persons suspected of any serious criminal offence have their finger-impressions recorded and those of convicts in similar cases are recorded in the Provincial Bureau, enabling enhanced and deterrent punishment to be inflicted on re-conviction. This system is extended to all male members of criminal tribes on attaining the age of 12 years.

Criminal tribes.

216. The Sansi, Harni and Pakhiwara tribes are registered in the district under the Criminal Tribes Act. Sansis and Pakhiwaras are to be found in all tahsils, but Harnis have their habitation in those of Batala, Gurdaspur and Pathankot only.

Sansis are the most troublesome of these tribes and are addicted to crimes of a burglarious nature against property. The registered members (males) of these tribes are Sansis 791, Harnis 378 and Pakhiwaras 145 : of these 303 Sansis, 322 Harnis and 130 Pakhiwaras have been exempted by order of the District Magistrate from the provisions of the Act as regards roll-call and police surveillance by reason of their being of sufficiently good character. The Perna tribe, which is not subject to the Act and does not have its habitation in the district, has given considerable trouble in the past, principally in the Shakargarh and Pathankot Tahsils. Gangs of this tribe pass into the district from Jammu territory, generally during harvest operations, and are addicted to carrying off standing crops and cattle and to the commission of theft and burglary. Prompt action under the Criminal Procedure Code has secured immunity from their depredations in certain localities, but in the Pathankot circle the cultivators do not appear to co-operate with the police in giving information of the arrival of the gangs whose presence they are sometimes inclined to put up with.

Jails.

217. There is a third class jail at the head-quarters of the district with accommodation for 287 prisoners of all classes, criminal, civil and under-trial. The daily average number of inmates during the quinquennium ending 1913 was 180.

Long term prisoners, *i.e.*, all sentenced to over one year's imprisonment, are transferred to other jails of the Province, being detained here only until their appeals are decided ; adult prisoners sentenced to over four months' imprisonment are sent to the Central Jail, Lahore.

The health of prisoners was very good during the same quinquennium, the daily average number of sick being 1·6 or 2 per cent. on the daily average number of inmates.

CHAP. III-I.

Education and Literacy.

Jails.

The industries carried on in the jail are the manufacture of paper, *munj*-durries, *newar*, tape, chicks and string-bags for holding rupees. Book-binding is also done. Most of the sales are to the various Government offices and a few private persons in the district.

The profit from sales during the last five years averaged Rs. 2,231-11-4 per annum. The average annual expenditure on jail maintenance, guards, &c., during the same period was Rs. 15,823, giving an average of Rs. 80-6-0 per annum per prisoner. There is no reformatory in the district.

Section I.—Education and Literacy.

Literacy.

218. Out of every 1,000 persons 51 are literate in the case of males and only 2 in the case of females. In point of literacy among the males Pathankot Tahsil is the most forward, but in female education Batala heads the list. This tahsil is ahead of all in higher education, 5 out of the 6 High Schools for boys being situated in it. The tahsil of Shakargarh is the most backward in both. Of the three leading communities Hindus are the most advanced, as far as literacy goes.

Scripts employed.

219. Generally Urdu is the script employed throughout. Nagri and Gurmukhi characters are used in a few schools, mostly for girls.

Number of schools.

220. At the close of the year 1911 there were altogether 231 schools of all kinds with 13,821 scholars in them. Of these 8 are High Schools, 6 Anglo-Vernacular Middle, 5 Vernacular Middle and the remaining 212 Primary Schools,—40 being aided indigenous and 23 other private schools. The distribution of the schools is shewn in Map No. III.

Methods of instruction.

221. The methods of instruction employed in indigenous schools appeal mostly to memory and do very little if at all to develop the general mental faculties of children. Such schools teach only the three R.'s. In others, known as private schools, only languages are taught and they too by rote. In fact in these schools there is little education, properly so-called.

In the Public Primary and Middle Schools the schemes laid down in the Education Code are followed. Vernacular Middle Schools prepare boys for the Vernacular Middle School Examination which is conducted by the Education Department. The Primary Course comprises Reading, Writing, Arithmetic, Geography, Nature Lessons and Kindergarten. Schools situated in rural areas teach also practical Mensuration, Land Records, *Bahi Khata*, and the native system of accounts.

The High Schools are affiliated to the Punjab University and prepare students for the Matriculation Examination. The chief subjects taught are English, Mathematics, General Knowledge, Persian, Drawing and Physical Science; some have Sanskrit and Arabic classes also.

CHAP. III-I. — Education and Literacy. Methods of instruction.

The district lies in the Division of Lahore, and is under the Inspector of Schools of that Division.

Except the Baring High School, Batala, which exists solely for the education of Christian boys, there is no school in the district which confines itself to the teaching of any particular class or tribe. There are no separate schools for the aboriginal or depressed castes, but children belonging to them are now admitted into schools of all grades without any particular hindrance, though in some places there is still a strong prejudice against them which is expected to die out gradually.

222. In female education the district is not very advanced. In the year 1911 there were altogether 26 girls' schools of all grades and kinds with 924 scholars in them. The Mission High School at Pathankot is a very interesting and useful institution and is gradually but surely developing. Female education.

223. Some account of the more notable educational institutions of the district is given below :— The Gurdaspur High School.

Gurdaspur High School.—The Government High School, Gurdaspur, is one of the oldest schools in the province, having been opened in 1856, when it was a Vernacular Middle School; in 1870 it became Anglo-Vernacular and was raised to a High School in 1878. Up to 1885 it was a Government School, it was then made over to the municipality and remained a Municipal Board School till the end of 1904, when it was again taken over by the Government and is now a Government High School. During the past $2\frac{1}{2}$ years it has made considerable progress. The numbers have risen from 500 to 650, the fee income from less than Rs. 7,000 to Rs. 13,000 a year and the boarding-houses are overfull. A new building will shortly be erected when the old High School building will be made over to the Normal School, which will be opened here as soon as the new High School building is ready.

224. *Municipal Board High School, Batala.*—An Anglo-Vernacular Middle School was established at Batala in 1860. It was a Government Zillah School up to 1886 when the management was transferred to the municipal committee. In 1906 it was raised to the status of a High School. There are about 800 The Batala High School.

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Education and Literacy.

The Batala High School.

students in the main school and its branches. The income from fees is Rs. 10,200. It is also aided by Government. The total expenditure is about Rs. 14,000. There is no boarding-house attached to the school though the Rivaz Hostel was started in 1907: this hostel has recently to be closed owing to the scandals which had become rife concerning it.

The Baring High School, Batala

225. *The Baring High School.*—The Baring High School was founded in 1878 by the Reverend F. H. Baring, of the Church Missionary Society, for the educational training of the Christian boys of the educated classes in Northern India. The buildings are situated in extensive grounds about a mile south of the railway, and east of Batala City. The central building is an old palace of Maharaja Sher Singh's, adapted for use as the boys' dormitories and the Principal's house. To the north and west of this building are the chapel and the class-rooms; while a large playing-field, and also a sanatorium and carpenter's shop, lie in the northern half of the grounds. The school is essentially a Boarding School. Its most prominent Principal, the Reverend Egerton Corfield (1885—1900), aimed at its becoming the 'Eton of the Punjab' and the life out of the school hours, as well as the teaching in the class rooms, had for its special object the development of a strong Christian character. The masters' houses are situated near the school on the main road; and there is a large swimming bath in the grounds, built in memory of the first Indian Headmaster, Babu I. C. Singha. The present Principal is the Reverend A. C. Clarke, M. A.

The A. L. O. E. High School, Batala.

226. *A. L. O. E. High School, Batala.*—The A. L. O. E. High School, Batala, is situated just outside the main gate of the town. It was started as a Primary School by the first lady Missionary in Batala, Miss Tucker, who is better known by her writing name of A. L. O. E. In 1882 the Church Missionary Society took over the school, and it has since that time remained under its management, being a definite part of the Missionary work of that Society. On the death of Miss Tucker the school's name was changed to the A. L. O. E., in honour of its founder. In 1898 the Revd. T. E. Coverdale, who was then in charge, raised it to the status of a High School. The number of students at present is about 550 and the present Headmaster is Mr. B. M. Sircar, B.A. Boys of all classes and creeds are admitted, and there are at present about an equal number of Muhammadans and Hindus with a fair number of Sikhs and a few Christians. There is a hostel in connection with the school which was opened in 1902 and has accommodation for about 100 boys.

CHAP. III-I.

Education and Literacy.

The Kadian High School.

227. *Talim-ul-Islam High School, Kadian.*—This institution, which is situated at a distance of about eleven miles to the north-east of Batala, was founded by Mirza Ghulam Ahmad of Kadian and the founder of the new well-known Ahmadiya movement. The increasing population of the village brought about its extension, and necessitated the foundation of a school, which soon developed from the Primary to the High School standard. Admission to the school is not confined to local scholars, but is attended by boys from all over India. The Quran enters largely into the curriculum of the school and the teachers and the taught rigidly follow the ordained Islamic practices. It is however open to all sects, and even to non-Muslims. In order to meet the increasing needs of the institution a tract of land, covering some 50 acres, has been acquired, and a new school building is being constructed with a fine hostel, a mosque and a few private houses for the use of those directly concerned with the institution.

The Dera Nanak High School.

228. *D. B. Dane High School, Dera Nanak.*—This school was raised to the High School status in May, 1909, when Sir L. Dane, the late Lieutenant-Governor of the Punjab, paid a visit to the town, and raised its Provincial grant from Rs. 300 per annum to Rs. 1,000 per annum. With its Lower Primary classes, at the beginning of the current school year, it had a strength of nearly 500 scholars which was reduced to 300 after the aforesaid classes were detached. It is yet without Arabic and Sanskrit teachers or a Drawing Instructor. Classes for four years had to be held under trees for want of accommodation which has now been supplied by 8 spacious class-rooms, 2 Science rooms, 1 Drawing room and one big hall. This new building owes its existence to the subscriptions of the people of the town and its suburbs, aided by Government. The school is as yet without a hostel and a play-ground. At present the boarding-house is in a private building rented for the purpose.

The Avalon Girls' High School, Pathankot.

229. *The Avalon Girl's High School, Pathankot.*—The Avalon Girls' High School of Pathankot was founded in October 1906. The work was started in a very simple way and without any of the modern conveniences, but with some assistance from Government it has grown greatly, and at the present time a fine new building for the boarders and staff is almost completed. This, when finished, will provide large airy dormitories, but class-rooms and a hall are still required. It is proposed to buy an extra strip of land which runs beside the

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The Avalon Girls' High School, Pathankot.

boundary of the estate. If this is done, the building, when finished, will be one of the finest girls' schools in the province. The teachers in this school are trained teachers, so the work is carried on on modern lines. The pupils number 70, and are drawn from all over the province. Nearly all are Christians, though the school is open to all who wish to come. Great attention is given to the health of the school and games are encouraged.

Educational expenditure.

230. In 1910-11 the total expenditure on all educational purposes, including buildings, amounted to Rs. 1,49,247. Out of this Rs. 33,434 was met from Provincial revenues, Rs. 42,416 from District Board funds, Rs. 11,340 from Municipal Funds, Rs. 41,519 from tuition fees, and Rs. 18,538 from subscriptions and other sources. During the last 10 years the total expenditure has risen from Rs. 84,578 to Rs. 1,49,247 or by more than 76 per cent. During this period the fee income has increased by 50 per cent., and the expenditure from Government funds has gone up by 77 per cent. from District Board Funds and from subscriptions by about 49 per cent., but that from Municipal Funds has slightly fallen.

Native Press.

231. Newspapers are published only at Kadian in Batala Tahsil, the head-quarters of the Ahmadiya sect described in paragraph 55. There are six published in Urdu and one in Urdu and English : all of them deal with religious subjects.

Section J.—Medical.

Dispensaries.

232. There are 18 dispensaries in the district which are supported from Local Boards, Municipal Boards and Canal Department funds. The dispensaries maintained by the District Board are the following :—

> Gurdaspur, Shakargarh, Fatehgarh, Narot Jaimal Singh, Srigobindpur, Sujanpur, Kalanaur, Dunera, Kahnuwan and Sukho Chak :

the last three are experimental dispensaries, opened in the year 1912. The dispensaries maintained from Municipal Funds are :—

> Batala Sadr and Branch, Pathankot, Dinanagar, Dera Nanak and Dalhousie.

The Canal dispensaries are at Aliwal and Madhopur.

The Gurdaspur Civil Dispensary and Batala Sadr Dispensary are in charge of Assistant Surgeons, the rest are under Sub-Assistant Surgeons.

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Medical.

Dispensaries.

The Dunera Dispensary is an itinerating one in the hill circle for five months in the year from November to March; for the rest of the year it is located at Dunera. This is doing much good in hill villages, where the people are backward and ignorant and reluctant to attend fixed dispensaries. Sujanpur, Dunera, Kahnuwan, Sukho Chak and Batala Branch are out-door dispensaries and so are the two canal dispensaries. The rest treat both in-door and out-door patients. The Board institutions are as fully equipped as is compatible with the limited resources of the local bodies maintaining them. The following table shows the average annual work done at these dispensaries during the quinquennium ending 1913 :—

Serial No.	Name and class of dispensary.	Average number of patients in the year. In-door.	Out-door.	Average daily attendance of new and old patients.	Average annual number of operations. Selected operations.	All operations.	Annual average expenditure.	Average cost per new patient.
							Rs	Rs. A. P.
1	Gurdaspur III ..	590	28,953	131·83	202	1,081	8,908	0 4 10
2	Batala Sadr III ..	575	60,042	321·87	196	2,156	6,075	0 1 7
3	Batala City Branch III.	..	61,041	390·56	58	1,717	2,505	0 0 8
4	Pathankot III ..	115	13,473	59·34	20	396	2,513	0 2 11
5	Dalhousie III ..	34	5,667	26·42	10	262	2,422	0 6 9
6	Kalanaur III ..	87	14,436	62.34	25	338	1,781	0 1 11
7	Shakargarh III ..	117	15,832	63·75	32	583	1,676	0 1 8
8	Srigobindpur III..	135	19,749	102·33	45	725	1,579	0 1 3
9	Narot III ..	86	13,119	61·06	29	377	1,600	0 1 11
10	Dinanagar III ..	68	13,633	83·41	12	423	1,775	0 2 1
11	Fatehgarh III ..	275	20,111	99·23	131	847	1,679	0 1 4
12	Sujanpur III ..	..	19,444	100·59	16	284	1,382	0 1 1
13	Dera Nanak III ..	97	20,450	109·71	12	469	2,140	0 1 8
14	Dunera III ..	..	855	7·01	1	23	510	0 9 6
15	Sukho Chak III ..	..	3,886	22·22	7	332	472	0 1 11
16	Kahnuwan III ..	..	3,253	25·66	6	236	399	0 1 11

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Vaccination.

233. Vaccination is compulsory in Dalhousie. For the rest of the district it is not compulsory. There is still some trouble in persuading people to submit their children to the operation. This is specially felt in the larger villages, where the lambardars have not the same influence over the people. In round figures, 75 per cent. of newly-born children are vaccinated during the ensuing winter. The number of troublesome villages is about 5 per cent. Re-vaccination is not at all popular yet, and the benefits are very little understood. The result is seen in outbreaks of small-pox from time to time. The following statement exhibits the degree of success and failure attained :—

Years.	Total number of births.	Total number successfully vaccinated.			Total number of deaths from small-pox
		Primary.	Re-vaccination.	Total.	
1908-09	33,713	23,160	2,053	25,213	23
1909-10	38,906	22,401	512	22,913	39
1910-11	37,825	27,120	920	28,040	64
1911-12	40,125	29,045	639	29,684	141
1912-13	40,816	30,051	2,220	32,271	959

Village sanitation.

234. The sanitation of villages continues the same, and there is very little progress in this respect. The streets and lanes are very seldom swept, their surroundings are littered with manure heaps and filth of every kind. There are pools and collections of sewage-water in such close proximity to human habitations that they are the haunts and breeding places of disease of all kinds. The wells are usually uncovered. Their surroundings are usually most insanitary and liquid filth is very apt to percolate into the well. In some of the larger villages the mud houses are being replaced by masonry buildings. In some towns, like Kalanaur, which has now ceased to be a notified area, there is a *Panchait* or village committee which employs sweepers and *bhistis* for conservancy, but as there is no proper supervision the condition of the streets and drains is far from satisfactory.

Quinine distribution.

235. Quinine is freely distributed during the malarial season. A Quinine Distribution Society started in 1909 got rid of 1,484 pounds of quinine in that year and 1,195 pounds in the year 1910 to the subscribing villages. These enormous quantities of quinine were not really consumed by the people, who

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Quinine distribution.

frequently cast the medicine into ponds and dung-heaps, gave it to their cattle or disposed of it in various unseemly ways. The misplaced zeal of subordinates brought odium upon the movement and led to abuses of various kinds; the membership subscription came to be known as the "che anne ka ticcus"; zaildars entrusted with quantities of quinine for distribution professed that it was only at personal risk that they could go into villages on this errand; and finally the Society came to an untimely end. Distribution then devolved on the district dispensaries and vaccinators, and in this way 99 lbs. were distributed free of cost in the year 1911, 50 lbs. in 1912 and 43 lbs. in 1913.

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